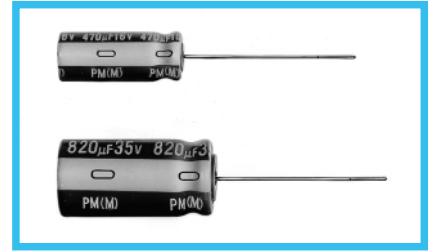


# ALUMINUM ELECTROLYTIC CAPACITORS

## PM series Extremely Low Impedance, High Reliability



Low Impedance Long Life Anti-Solvent Feature (through 100V only)

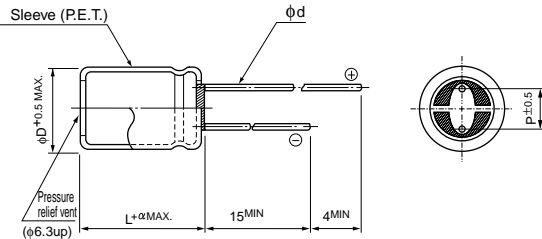


- High reliability withstanding 5000 hour load life at +105°C (3000/2000 hours for smaller case sizes as specified below).
- Capacitance ranges available based on the numerical values in E12 series under JIS.
- Compliant to the RoHS directive (2002/95/EC).

### Specifications

| Item                          | Performance Characteristics  |   |    |    |    |    |    |           |            |           |  |
|-------------------------------|--|---|----|----|----|----|----|-----------|------------|-----------|--|
| Category Temperature Range    | -55 to +105°C (6.3 to 100V), -40 to +105°C (160 to 400V), -25 to +105°C (450V)   |   |    |    |    |    |    |           |            |           |  |
| Rated Voltage Range           | 6.3 to 450V  |   |    |    |    |    |    |           |            |           |  |
| Rated Capacitance Range       | 0.47 to 15000µF  |   |    |    |    |    |    |           |            |           |  |
| Capacitance Tolerance         | ±20% at 120Hz, 20°C  |   |    |    |    |    |    |           |            |           |  |
| Leakage Current               | Rated Voltage (V)  | 6.3 to 100 160 to 450   |    |    |    |    |    |           |            |           |  |
|                               | Leakage current  | After 1 minute's application of rated voltage, leakage current is not more than 0.03CV or 4 (µA), whichever is greater. CV ≤ 1000 : I = 0.1CV+40 (µA) max. (1 minute's) CV > 1000 : I = 0.04CV+100 (µA) max. (1 minute's) |    |    |    |    |    |           |            |           |  |
| Tangent of loss angle (tan δ) | For capacitance of more than 1000µF, add 0.02 for every increase of 1000µF. Measurement frequency : 120Hz at 20°C  |   |    |    |    |    |    |           |            |           |  |
|                               | Rated Voltage (V)  | 6.3   | 10 | 16 | 25 | 35 | 50 | 63 to 100 | 160 to 350 | 400 · 450 |  |
| Stability at Low Temperature  | Impedance ratio (MAX.)   | Rated voltage (V)   |    |    |    |    |    |           |            |           |  |
|                               |  | Z-25°C / Z+20°C   |    |    |    |    |    |           |            |           |  |
|                               |  | Z-40°C / Z+20°C   |    |    |    |    |    |           |            |           |  |
|                               |  | Z-55°C / Z+20°C   |    |    |    |    |    |           |            |           |  |
| Endurance                     | The specifications listed at right shall be met when the capacitors are restored to 20°C after D.C. bias plus rated ripple current is applied for 5000 hours (2000 hours for φD=5 and 6.3, 3000 hours for φD=8) at 105°C, the peak voltage shall not exceed the rated voltage. |   |    |    |    |    |    |           |            |           |  |
|                               | Capacitance change   | Within ±20% of the initial capacitance value  |    |    |    |    |    |           |            |           |  |
|                               | tan δ  | 200% or less than the initial specified value   |    |    |    |    |    |           |            |           |  |
|                               | Leakage current  | Less than or equal to the initial specified value   |    |    |    |    |    |           |            |           |  |
| Shelf Life                    | After storing the capacitors under no load at 105°C for 1000 hours and then performing voltage treatment based on JIS C 5101-4 clause 4.1 at 20°C, they shall meet the characteristic requirements listed at right.  |   |    |    |    |    |    |           |            |           |  |
|                               | Capacitance change   | Within ±20% of the initial capacitance value  |    |    |    |    |    |           |            |           |  |
|                               | tan δ  | 150% or less than the initial specified value   |    |    |    |    |    |           |            |           |  |
|                               | Leakage current  | Less than or equal to the initial specified value   |    |    |    |    |    |           |            |           |  |
| Marking                       | Printed with white color letter on dark brown sleeve.  |   |    |    |    |    |    |           |            |           |  |

### Radial Lead Type



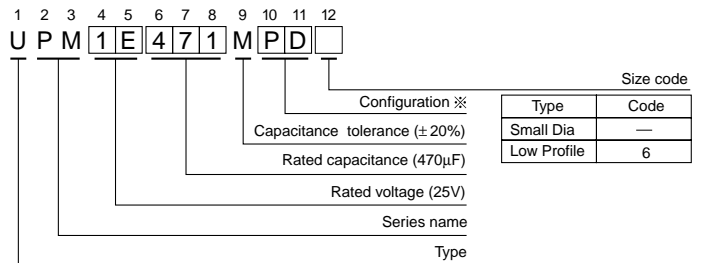
|   |           |     |
|---|-----------|-----|
| α | (φD < 10) | 1.5 |
|   | (φD ≥ 10) | 2.0 |

|    | (mm) |     |     |     |      |     |     |  |
|----|------|-----|-----|-----|------|-----|-----|--|
| φD | 5    | 6.3 | 8   | 10  | 12.5 | 16  | 18  |  |
| P  | 2.0  | 2.5 | 3.5 | 5.0 | 5.0  | 7.5 | 7.5 |  |
| φd | 0.5  | 0.5 | 0.6 | 0.6 | 0.6* | 0.8 | 0.8 |  |

※: In case L > 25 for the φ12.5 dia. unit, lead dia. φd = 0.8mm.

- Please refer to page 20 about the end seal configuration.

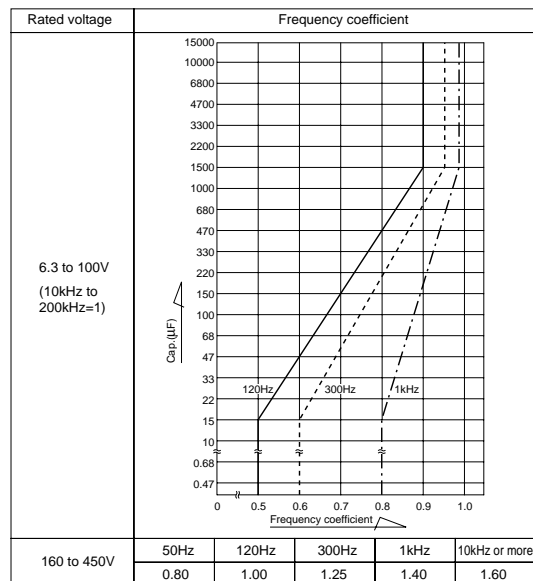
### Type numbering system (Example : 25V 470µF)



#### ※ Configuration

| φ D        | Pb-free leadwire Pb-free PET sleeve |
|------------|-------------------------------------|
| 5          | DD                                  |
| 6.3        | ED                                  |
| 8 · 10     | PD                                  |
| 12.5 to 18 | HD                                  |

### Frequency coefficient of rated ripple current



Please refer to page 20, 21, 22 about the formed or taped product spec.  
Please refer to page 4 for the minimum order quantity.

- Dimension table in next page.

# ALUMINUM ELECTROLYTIC CAPACITORS

## ■ Dimensions

φD×L (mm)

| Cap.(μF) | Code | V(Code)<br>Size code | 6.3 (0J)    |           | 10 (1A)     |           | 16 (1C)     |           | 25 (1E)     |           | 35 (1V)     |           |
|----------|------|----------------------|-------------|-----------|-------------|-----------|-------------|-----------|-------------|-----------|-------------|-----------|
|          |      |                      | —           | 6         | —           | 6         | —           | 6         | —           | 6         | —           | 6         |
| 22       | 220  |                      |             |           |             |           |             |           |             |           |             | 5 × 11    |
| 27       | 270  |                      |             |           |             |           |             |           |             |           |             | 5 × 11    |
| 33       | 330  |                      |             |           |             |           |             |           |             | 5 × 11    |             | 6.3 × 11  |
| 39       | 390  |                      |             |           |             |           |             |           |             | 5 × 11    |             | 6.3 × 11  |
| 47       | 470  |                      |             |           |             |           |             | 5 × 11    |             | 6.3 × 11  |             | 6.3 × 11  |
| 56       | 560  |                      |             |           |             |           |             | 5 × 11    |             | 6.3 × 11  |             | 6.3 × 11  |
| 68       | 680  |                      |             |           | 5 × 11      |           |             | 6.3 × 11  |             | 6.3 × 11  |             | 6.3 × 15  |
| 82       | 820  |                      |             |           | 5 × 11      |           |             | 6.3 × 11  |             | 6.3 × 11  |             | 6.3 × 15  |
| 100      | 101  |                      | 5 × 11      |           | 6.3 × 11    |           |             | 6.3 × 11  |             | 6.3 × 15  |             | 8 × 11.5  |
| 120      | 121  |                      | 5 × 11      |           | 6.3 × 11    |           |             | 6.3 × 11  |             | 6.3 × 15  |             | 8 × 15    |
| 150      | 151  |                      | 6.3 × 11    |           | 6.3 × 11    |           |             | 6.3 × 15  |             | 8 × 11.5  |             | 8 × 15    |
| 180      | 181  |                      | 6.3 × 11    |           | 6.3 × 11    |           |             | 6.3 × 15  |             | 8 × 15    | 10 × 12.5   | 8 × 20    |
| 220      | 221  |                      | 6.3 × 11    |           | 6.3 × 15    |           |             | 8 × 11.5  |             | 8 × 15    | 10 × 12.5   | 8 × 20    |
| 270      | 271  |                      | 6.3 × 15    |           | 6.3 × 15    |           |             | 8 × 15    | 10 × 12.5   | 8 × 20    | 10 × 15     | 10 × 20   |
| 330      | 331  |                      | 6.3 × 15    |           | 8 × 11.5    |           |             | 8 × 15    | 10 × 12.5   | 8 × 20    | 10 × 15     | 10 × 20   |
| 390      | 391  |                      | 8 × 11.5    |           | 8 × 15      | 10 × 12.5 |             | 8 × 20    | 10 × 15     | 10 × 20   | 12.5 × 15   | 10 × 25   |
| 470      | 471  |                      | 8 × 15      | 10 × 12.5 | 8 × 15      | 10 × 12.5 |             | 8 × 20    | 10 × 15     | 10 × 20   | 12.5 × 15   | 10 × 31.5 |
| 560      | 561  |                      | 8 × 15      | 10 × 12.5 | 8 × 20      | 10 × 15   | 10 × 20     | 12.5 × 15 | 10 × 25     | 12.5 × 15 | 12.5 × 15   | 12.5 × 20 |
| 680      | 681  |                      | 8 × 20      | 10 × 15   | 8 × 20      | 10 × 15   | 10 × 20     | 12.5 × 15 | 10 × 31.5   | 16 × 15   | 12.5 × 25   | 18 × 15   |
| 820      | 821  |                      | 8 × 20      | 10 × 15   | 10 × 20     | 12.5 × 15 | 10 × 25     | 12.5 × 15 | 12.5 × 20   | 16 × 15   | 12.5 × 25   | 18 × 15   |
| 1000     | 102  |                      | 10 × 20     | 12.5 × 15 | 10 × 20     | 12.5 × 15 | 10 × 31.5   | 16 × 15   | 12.5 × 25   | 18 × 15   | 12.5 × 31.5 | 16 × 20   |
| 1200     | 122  |                      | 10 × 20     | 12.5 × 15 | 10 × 25     | 12.5 × 15 | 12.5 × 20   | 16 × 15   | 12.5 × 25   | 18 × 15   | 12.5 × 35.5 | 16 × 25   |
| 1500     | 152  |                      | 10 × 25     | 12.5 × 15 | 10 × 31.5   | 16 × 15   | 12.5 × 25   | 18 × 15   | 12.5 × 31.5 | 16 × 20   | 12.5 × 40   | 18 × 20   |
| 1800     | 182  |                      | 10 × 31.5   | 16 × 15   | 12.5 × 20   | 16 × 15   | 12.5 × 31.5 | 16 × 20   | 12.5 × 35.5 | 16 × 25   | 16 × 31.5   | 18 × 25   |
| 2200     | 222  |                      | 10 × 31.5   | 16 × 15   | 12.5 × 25   | 18 × 15   | 12.5 × 31.5 | 16 × 20   | 12.5 × 40   | 18 × 20   | 16 × 35.5   | 18 × 31.5 |
| 2700     | 272  |                      | 12.5 × 25   | 18 × 15   | 12.5 × 31.5 | 16 × 20   | 12.5 × 35.5 | 16 × 25   | 16 × 31.5   | 18 × 25   | 16 × 40     | 18 × 35.5 |
| 3300     | 332  |                      | 12.5 × 25   | 18 × 15   | 12.5 × 35.5 | 16 × 20   | 12.5 × 40   | 18 × 20   | 16 × 35.5   | 18 × 31.5 | 18 × 40     |           |
| 3900     | 392  |                      | 12.5 × 31.5 | 16 × 20   | 12.5 × 40   | 18 × 20   | 16 × 31.5   | 18 × 25   | 16 × 40     | 18 × 35.5 |             |           |
| 4700     | 472  |                      | 12.5 × 35.5 | 18 × 20   | 16 × 31.5   | 18 × 25   | 16 × 35.5   | 18 × 31.5 | 18 × 40     |           |             |           |
| 5600     | 562  |                      | 12.5 × 40   | 18 × 20   | 16 × 35.5   | 18 × 25   | 16 × 40     | 18 × 35.5 |             |           |             |           |
| 6800     | 682  |                      | 16 × 31.5   | 18 × 25   | 16 × 35.5   | 18 × 31.5 | 18 × 35.5   |           |             |           |             |           |
| 8200     | 822  |                      | 16 × 35.5   | 18 × 31.5 | 16 × 40     | 18 × 35.5 | 18 × 40     |           |             |           |             |           |
| 10000    | 103  |                      | 16 × 40     | 18 × 31.5 | 18 × 40     |           |             |           |             |           |             |           |
| 12000    | 123  |                      | 18 × 35.5   |           |             |           |             |           |             |           |             |           |
| 15000    | 153  |                      | 18 × 40     |           |             |           |             |           |             |           |             |           |

| Cap.(μF) | Code | V(Code)<br>Size code | 50 (1H)     |           | 63 (1J)     |           | 80 (1K)     |           | 100 (2A)    |           |
|----------|------|----------------------|-------------|-----------|-------------|-----------|-------------|-----------|-------------|-----------|
|          |      |                      | —           | 6         | —           | 6         | —           | 6         | —           | 6         |
| 0.47     | R47  |                      | 5 × 11      |           |             |           |             |           | 5 × 11      |           |
| 0.68     | R68  |                      | 5 × 11      |           |             |           |             |           | 5 × 11      |           |
| 1        | 010  |                      | 5 × 11      |           |             |           |             |           | 5 × 11      |           |
| 1.5      | 1R5  |                      | 5 × 11      |           |             |           |             |           | 5 × 11      |           |
| 2.2      | 2R2  |                      | 5 × 11      |           |             |           |             |           | 5 × 11      |           |
| 3.3      | 3R3  |                      | 5 × 11      |           |             |           |             |           | 5 × 11      |           |
| 4.7      | 4R7  |                      | 5 × 11      |           |             |           | 5 × 11      |           | 6.3 × 11    |           |
| 6.8      | 6R8  |                      | 5 × 11      |           |             |           | 5 × 11      |           | 6.3 × 11    |           |
| 10       | 100  |                      | 5 × 11      |           | 5 × 11      |           | 6.3 × 11    |           | 6.3 × 11    |           |
| 12       | 120  |                      | 5 × 11      |           | 5 × 11      |           | 6.3 × 11    |           | 6.3 × 11    |           |
| 15       | 150  |                      | 5 × 11      |           | 6.3 × 11    |           | 6.3 × 11    |           | 6.3 × 15    |           |
| 18       | 180  |                      | 5 × 11      |           | 6.3 × 11    |           | 6.3 × 11    |           | 6.3 × 15    |           |
| 22       | 220  |                      | 6.3 × 11    |           | 6.3 × 11    |           | 6.3 × 15    |           | 8 × 11.5    |           |
| 27       | 270  |                      | 6.3 × 11    |           | 6.3 × 11    |           | 6.3 × 15    |           | 8 × 15      | 10 × 12.5 |
| 33       | 330  |                      | 6.3 × 11    |           | 6.3 × 15    |           | 8 × 11.5    |           | 8 × 15      | 10 × 12.5 |
| 39       | 390  |                      | 6.3 × 11    |           | 6.3 × 15    |           | 8 × 15      | 10 × 12.5 | 8 × 20      | 10 × 15   |
| 47       | 470  |                      | 6.3 × 15    |           | 8 × 11.5    |           | 8 × 15      | 10 × 12.5 | 10 × 20     | 12.5 × 15 |
| 56       | 560  |                      | 6.3 × 15    |           | 8 × 15      | 10 × 12.5 | 8 × 20      | 10 × 15   | 10 × 20     | 12.5 × 15 |
| 68       | 680  |                      | 8 × 11.5    |           | 8 × 15      | 10 × 12.5 | 10 × 20     | 12.5 × 15 | 10 × 25     | 12.5 × 15 |
| 82       | 820  |                      | 8 × 15      | 10 × 12.5 | 8 × 20      | 10 × 15   | 10 × 20     | 12.5 × 15 | 10 × 31.5   | 16 × 15   |
| 100      | 101  |                      | 8 × 20      | 10 × 15   | 10 × 20     | 12.5 × 15 | 10 × 25     | 12.5 × 15 | 10 × 31.5   | 16 × 15   |
| 120      | 121  |                      | 8 × 20      | 10 × 15   | 10 × 20     | 12.5 × 15 | 10 × 31.5   | 16 × 15   | 12.5 × 25   | 16 × 15   |
| 150      | 151  |                      | 10 × 20     | 12.5 × 15 | 10 × 25     | 12.5 × 15 | 10 × 31.5   | 16 × 15   | 12.5 × 25   | 18 × 15   |
| 180      | 181  |                      | 10 × 20     | 12.5 × 15 | 10 × 31.5   | 16 × 15   | 12.5 × 25   | 16 × 15   | 12.5 × 31.5 | 16 × 20   |
| 220      | 221  |                      | 10 × 25     | 12.5 × 15 | 12.5 × 20   | 16 × 15   | 12.5 × 31.5 | 18 × 15   | 12.5 × 35.5 | 16 × 25   |
| 270      | 271  |                      | 10 × 31.5   | 16 × 15   | 12.5 × 25   | 18 × 15   | 12.5 × 31.5 | 16 × 20   | 12.5 × 40   | 18 × 20   |
| 330      | 331  |                      | 10 × 31.5   | 16 × 15   | 12.5 × 25   | 18 × 15   | 12.5 × 35.5 | 16 × 25   | 16 × 31.5   | 18 × 25   |
| 390      | 391  |                      | 12.5 × 25   | 16 × 15   | 12.5 × 31.5 | 16 × 20   | 12.5 × 40   | 18 × 20   | 16 × 35.5   | 18 × 31.5 |
| 470      | 471  |                      | 12.5 × 25   | 18 × 15   | 12.5 × 35.5 | 16 × 25   | 16 × 31.5   | 18 × 25   | 16 × 40     | 18 × 35.5 |
| 560      | 561  |                      | 12.5 × 31.5 | 16 × 20   | 12.5 × 40   | 18 × 20   | 16 × 35.5   | 18 × 31.5 | 18 × 35.5   |           |
| 680      | 681  |                      | 12.5 × 35.5 | 16 × 20   | 16 × 31.5   | 18 × 25   | 16 × 40     | 18 × 31.5 | 18 × 40     |           |
| 820      | 821  |                      | 12.5 × 40   | 18 × 20   | 16 × 35.5   | 18 × 31.5 | 18 × 35.5   |           |             |           |
| 1000     | 102  |                      | 16 × 31.5   | 18 × 25   | 16 × 40     | 18 × 35.5 | 18 × 40     |           |             |           |
| 1200     | 122  |                      | 16 × 35.5   | 18 × 31.5 | 18 × 40     |           |             |           |             |           |
| 1500     | 152  |                      | 16 × 40     | 18 × 31.5 |             |           |             |           |             |           |
| 1800     | 182  |                      | 18 × 35.5   |           |             |           |             |           |             |           |
| 2200     | 222  |                      | 18 × 40     |           |             |           |             |           |             |           |

※In case of low profile type, ⑥ will be put at 12th digit of type numbering system.

Dimension table for 160 to 450V products are shown in 160 page.

## Standard Ratings

| Cap.( $\mu$ F) | V(Code)<br>Size code | Item<br>Code       | 6.3 (0J)                                 |                             |                |                         |                  |                             |                |                         |               |  |
|----------------|----------------------|--------------------|--|-----------------------------|----------------|-------------------------|------------------|-----------------------------|----------------|-------------------------|---------------|--|
|                |                      |                    | Case size<br>$\phi$ D $\times$ L<br>(mm) | —                           |                |                         |                  | 6                           |                |                         |               |  |
|                |                      |                    |  | Impedance ( $\Omega$ ) MAX. |                | Rated ripple (mArms)    |                  | Impedance ( $\Omega$ ) MAX. |                | Rated ripple (mArms)    |               |  |
|                |                      |                    |  | 20°C / 100kHz               | -10°C / 100kHz | 105°C / 10kHz to 200kHz | 105°C / 120Hz    | 20°C / 100kHz               | -10°C / 100kHz | 105°C / 10kHz to 200kHz | 105°C / 120Hz |  |
| 100            | 101                  | 5 $\times$ 11      | 0.85                                     | 1.70                        | 150            | 99                      |                  |                             |                |                         |               |  |
| 120            | 121                  | 5 $\times$ 11      | 0.65                                     | 1.30                        | 175            | 115                     |                  |                             |                |                         |               |  |
| 150            | 151                  | 6.3 $\times$ 11    | 0.49                                     | 0.98                        | 225            | 155                     |                  |                             |                |                         |               |  |
| 180            | 181                  | 6.3 $\times$ 11    | 0.39                                     | 0.78                        | 250            | 175                     |                  |                             |                |                         |               |  |
| 220            | 221                  | 6.3 $\times$ 11    | 0.30                                     | 0.60                        | 285            | 205                     |                  |                             |                |                         |               |  |
| 270            | 271                  | 6.3 $\times$ 15    | 0.24                                     | 0.48                        | 370            | 275                     |                  |                             |                |                         |               |  |
| 330            | 331                  | 6.3 $\times$ 15    | 0.20                                     | 0.40                        | 405            | 310                     |                  |                             |                |                         |               |  |
| 390            | 391                  | 8 $\times$ 11.5    | 0.17                                     | 0.34                        | 445            | 345                     |                  |                             |                |                         |               |  |
| 470            | 471                  | 8 $\times$ 15      | 0.14                                     | 0.28                        | 550            | 435                     | 10 $\times$ 12.5 | 0.14                        | 0.28           | 635                     | 455           |  |
| 560            | 561                  | 8 $\times$ 15      | 0.12                                     | 0.24                        | 595            | 480                     | 10 $\times$ 12.5 | 0.13                        | 0.26           | 670                     | 485           |  |
| 680            | 681                  | 8 $\times$ 20      | 0.10                                     | 0.20                        | 730            | 605                     | 10 $\times$ 15   | 0.11                        | 0.22           | 825                     | 580           |  |
| 820            | 821                  | 8 $\times$ 20      | 0.085                                    | 0.17                        | 795            | 670                     | 10 $\times$ 15   | 0.095                       | 0.19           | 840                     | 635           |  |
| 1000           | 102                  | 10 $\times$ 20     | 0.075                                    | 0.15                        | 950            | 820                     | 12.5 $\times$ 15 | 0.085                       | 0.17           | 890                     | 765           |  |
| 1200           | 122                  | 10 $\times$ 20     | 0.065                                    | 0.13                        | 1060           | 895                     | 12.5 $\times$ 15 | 0.075                       | 0.15           | 950                     | 835           |  |
| 1500           | 152                  | 10 $\times$ 25     | 0.055                                    | 0.11                        | 1260           | 1090                    | 12.5 $\times$ 15 | 0.065                       | 0.13           | 1020                    | 915           |  |
| 1800           | 182                  | 10 $\times$ 31.5   | 0.050                                    | 0.10                        | 1370           | 1230                    | 16 $\times$ 15   | 0.055                       | 0.11           | 1270                    | 1140          |  |
| 2200           | 222                  | 10 $\times$ 31.5   | 0.043                                    | 0.086                       | 1470           | 1320                    | 16 $\times$ 15   | 0.049                       | 0.098          | 1340                    | 1200          |  |
| 2700           | 272                  | 12.5 $\times$ 25   | 0.038                                    | 0.076                       | 1700           | 1430                    | 18 $\times$ 15   | 0.044                       | 0.088          | 1500                    | 1350          |  |
| 3300           | 332                  | 12.5 $\times$ 25   | 0.034                                    | 0.068                       | 1710           | 1530                    | 18 $\times$ 15   | 0.039                       | 0.078          | 1600                    | 1440          |  |
| 3900           | 392                  | 12.5 $\times$ 31.5 | 0.031                                    | 0.062                       | 1980           | 1710                    | 16 $\times$ 20   | 0.036                       | 0.072          | 1770                    | 1540          |  |
| 4700           | 472                  | 12.5 $\times$ 35.5 | 0.028                                    | 0.056                       | 2230           | 1890                    | 18 $\times$ 20   | 0.032                       | 0.064          | 1920                    | 1720          |  |
| 5600           | 562                  | 12.5 $\times$ 40   | 0.026                                    | 0.052                       | 2460           | 2040                    | 18 $\times$ 20   | 0.030                       | 0.060          | 1980                    | 1780          |  |
| 6800           | 682                  | 16 $\times$ 31.5   | 0.024                                    | 0.048                       | 2510           | 2130                    | 18 $\times$ 25   | 0.027                       | 0.054          | 2350                    | 1980          |  |
| 8200           | 822                  | 16 $\times$ 35.5   | 0.022                                    | 0.044                       | 2770           | 2290                    | 18 $\times$ 31.5 | 0.025                       | 0.050          | 2600                    | 2150          |  |
| 10000          | 103                  | 16 $\times$ 40     | 0.020                                    | 0.040                       | 3110           | 2470                    | 18 $\times$ 31.5 | 0.023                       | 0.046          | 2720                    | 2240          |  |
| 12000          | 123                  | 18 $\times$ 35.5   | 0.019                                    | 0.038                       | 3050           | 2530                    |                  |                             |                |                         |               |  |
| 15000          | 153                  | 18 $\times$ 40     | 0.018                                    | 0.036                       | 3300           | 2660                    |                  |                             |                |                         |               |  |

| Cap.( $\mu$ F) | V(Code)<br>Size code | Item<br>Code       | 10 (1A)                                  |                            |                |                         |                  |                             |                |                         |               |  |
|----------------|----------------------|--------------------|--|----------------------------|----------------|-------------------------|------------------|-----------------------------|----------------|-------------------------|---------------|--|
|                |                      |                    | Case size<br>$\phi$ D $\times$ L<br>(mm) | —                          |                |                         |                  | 6                           |                |                         |               |  |
|                |                      |                    |  | Impedance ( $\Omega$ )MAX. |                | Rated ripple (mArms)    |                  | Impedance ( $\Omega$ ) MAX. |                | Rated ripple (mArms)    |               |  |
|                |                      |                    |  | 20°C / 100kHz              | -10°C / 100kHz | 105°C / 10kHz to 200kHz | 105°C / 120Hz    | 20°C / 100kHz               | -10°C / 100kHz | 105°C / 10kHz to 200kHz | 105°C / 120Hz |  |
| 68             | 680                  | 5 $\times$ 11      | 0.80                                     | 1.60                       | 155            | 97                      |                  |                             |                |                         |               |  |
| 82             | 820                  | 5 $\times$ 11      | 0.65                                     | 1.30                       | 175            | 110                     |                  |                             |                |                         |               |  |
| 100            | 101                  | 6.3 $\times$ 11    | 0.55                                     | 1.10                       | 210            | 135                     |                  |                             |                |                         |               |  |
| 120            | 121                  | 6.3 $\times$ 11    | 0.44                                     | 0.88                       | 235            | 160                     |                  |                             |                |                         |               |  |
| 150            | 151                  | 6.3 $\times$ 11    | 0.35                                     | 0.70                       | 265            | 185                     |                  |                             |                |                         |               |  |
| 180            | 181                  | 6.3 $\times$ 11    | 0.29                                     | 0.58                       | 290            | 205                     |                  |                             |                |                         |               |  |
| 220            | 221                  | 6.3 $\times$ 15    | 0.24                                     | 0.48                       | 370            | 270                     |                  |                             |                |                         |               |  |
| 270            | 271                  | 6.3 $\times$ 15    | 0.20                                     | 0.40                       | 405            | 300                     |                  |                             |                |                         |               |  |
| 330            | 331                  | 8 $\times$ 11.5    | 0.16                                     | 0.32                       | 460            | 350                     |                  |                             |                |                         |               |  |
| 390            | 391                  | 8 $\times$ 15      | 0.14                                     | 0.28                       | 550            | 430                     | 10 $\times$ 12.5 | 0.15                        | 0.30           | 635                     | 430           |  |
| 470            | 471                  | 8 $\times$ 15      | 0.12                                     | 0.24                       | 595            | 475                     | 10 $\times$ 12.5 | 0.13                        | 0.26           | 670                     | 475           |  |
| 560            | 561                  | 8 $\times$ 20      | 0.10                                     | 0.20                       | 730            | 590                     | 10 $\times$ 15   | 0.11                        | 0.22           | 700                     | 565           |  |
| 680            | 681                  | 8 $\times$ 20      | 0.085                                    | 0.17                       | 795            | 660                     | 10 $\times$ 15   | 0.090                       | 0.18           | 825                     | 635           |  |
| 820            | 821                  | 10 $\times$ 20     | 0.070                                    | 0.14                       | 985            | 835                     | 12.5 $\times$ 15 | 0.080                       | 0.16           | 920                     | 780           |  |
| 1000           | 102                  | 10 $\times$ 20     | 0.060                                    | 0.12                       | 1060           | 915                     | 12.5 $\times$ 15 | 0.065                       | 0.13           | 1040                    | 895           |  |
| 1200           | 122                  | 10 $\times$ 25     | 0.050                                    | 0.10                       | 1260           | 1120                    | 12.5 $\times$ 15 | 0.060                       | 0.12           | 1060                    | 930           |  |
| 1500           | 152                  | 10 $\times$ 31.5   | 0.045                                    | 0.090                      | 1450           | 1290                    | 16 $\times$ 15   | 0.050                       | 0.10           | 1330                    | 1190          |  |
| 1800           | 182                  | 12.5 $\times$ 20   | 0.039                                    | 0.078                      | 1470           | 1320                    | 16 $\times$ 15   | 0.044                       | 0.088          | 1420                    | 1270          |  |
| 2200           | 222                  | 12.5 $\times$ 25   | 0.034                                    | 0.068                      | 1710           | 1530                    | 18 $\times$ 15   | 0.039                       | 0.078          | 1600                    | 1440          |  |
| 2700           | 272                  | 12.5 $\times$ 31.5 | 0.030                                    | 0.060                      | 1980           | 1740                    | 16 $\times$ 20   | 0.035                       | 0.070          | 1740                    | 1560          |  |
| 3300           | 332                  | 12.5 $\times$ 35.5 | 0.026                                    | 0.052                      | 2230           | 1960                    | 16 $\times$ 20   | 0.031                       | 0.062          | 1850                    | 1660          |  |
| 3900           | 392                  | 12.5 $\times$ 40   | 0.024                                    | 0.048                      | 2460           | 2120                    | 18 $\times$ 20   | 0.028                       | 0.056          | 2050                    | 1840          |  |
| 4700           | 472                  | 16 $\times$ 31.5   | 0.023                                    | 0.046                      | 2420           | 2170                    | 18 $\times$ 25   | 0.026                       | 0.052          | 2350                    | 2020          |  |
| 5600           | 562                  | 16 $\times$ 35.5   | 0.021                                    | 0.042                      | 2610           | 2340                    | 18 $\times$ 25   | 0.024                       | 0.048          | 2440                    | 2100          |  |
| 6800           | 682                  | 16 $\times$ 35.5   | 0.020                                    | 0.040                      | 2770           | 2410                    | 18 $\times$ 31.5 | 0.022                       | 0.044          | 2720                    | 2280          |  |
| 8200           | 822                  | 16 $\times$ 40     | 0.019                                    | 0.038                      | 3110           | 2530                    | 18 $\times$ 35.5 | 0.021                       | 0.042          | 3050                    | 2420          |  |
| 10000          | 103                  | 18 $\times$ 40     | 0.017                                    | 0.034                      | 3300           | 2730                    |                  |                             |                |                         |               |  |

※In case of low profile type, ⑥ will be put at 12th digit of type numbering system.

## Standard Ratings

| Cap.( $\mu$ F) |     | V(Code)<br>Size Code<br>Item<br>Code |       | 16 (1C)                                  |                             |                |  |               |  |                             |                |  |               |
|----------------|-----|--------------------------------------|-------|--|-----------------------------|----------------|--|---------------|--|-----------------------------|----------------|--|---------------|
|                |     |                                      |       | —  |                             |                |  | 6             |  |                             |                |  |               |
|                |     |                                      |       | Case size<br>$\phi$ D $\times$ L<br>(mm) | Impedance ( $\Omega$ ) MAX. |                | Rated ripple (mArms)                                       |               | Case size<br>$\phi$ D $\times$ L<br>(mm) | Impedance ( $\Omega$ ) MAX. |                | Rated ripple (mArms)                                       |               |
|                |     |                                      |       |  | 20°C / 100kHz               | -10°C / 100kHz | 105°C / $\frac{10\text{kHz}}{200\text{kHz}}$ <sup>1)</sup> | 105°C / 120Hz |  | 20°C / 100kHz               | -10°C / 100kHz | 105°C / $\frac{10\text{kHz}}{200\text{kHz}}$ <sup>1)</sup> | 105°C / 120Hz |
| 47             | 470 | 5 × 11                               | 0.80  | 1.60                                     | 155                         | 92             |  |               |  |                             |                |  |               |
| 56             | 560 | 5 × 11                               | 0.65  | 1.30                                     | 175                         | 105            |  |               |  |                             |                |  |               |
| 68             | 680 | 6.3 × 11                             | 0.50  | 1.00                                     | 220                         | 135            |  |               |  |                             |                |  |               |
| 82             | 820 | 6.3 × 11                             | 0.42  | 0.84                                     | 240                         | 155            |  |               |  |                             |                |  |               |
| 100            | 101 | 6.3 × 11                             | 0.35  | 0.70                                     | 265                         | 175            |  |               |  |                             |                |  |               |
| 120            | 121 | 6.3 × 11                             | 0.29  | 0.58                                     | 290                         | 195            |  |               |  |                             |                |  |               |
| 150            | 151 | 6.3 × 15                             | 0.23  | 0.46                                     | 375                         | 260            |  |               |  |                             |                |  |               |
| 180            | 181 | 6.3 × 15                             | 0.20  | 0.40                                     | 405                         | 285            |  |               |  |                             |                |  |               |
| 220            | 221 | 8 × 11.5                             | 0.16  | 0.32                                     | 460                         | 335            |  |               |  |                             |                |  |               |
| 270            | 271 | 8 × 15                               | 0.14  | 0.28                                     | 550                         | 410            | 10 × 12.5  | 0.14          | 0.28                                     | 635                         | 430            |  |               |
| 330            | 331 | 8 × 15                               | 0.12  | 0.24                                     | 595                         | 455            | 10 × 12.5  | 0.12          | 0.24                                     | 670                         | 480            |  |               |
| 390            | 391 | 8 × 20                               | 0.10  | 0.20                                     | 730                         | 570            | 10 × 15  | 0.10          | 0.20                                     | 730                         | 570            |  |               |
| 470            | 471 | 8 × 20                               | 0.090 | 0.18                                     | 770                         | 615            | 10 × 15  | 0.090         | 0.18                                     | 825                         | 615            |  |               |
| 560            | 561 | 10 × 20                              | 0.075 | 0.15                                     | 950                         | 770            | 12.5 × 15  | 0.080         | 0.16                                     | 920                         | 745            |  |               |
| 680            | 681 | 10 × 20                              | 0.065 | 0.13                                     | 1060                        | 845            | 12.5 × 15  | 0.070         | 0.14                                     | 985                         | 815            |  |               |
| 820            | 821 | 10 × 25                              | 0.055 | 0.11                                     | 1260                        | 1030           | 12.5 × 15  | 0.060         | 0.12                                     | 1060                        | 895            |  |               |
| 1000           | 102 | 10 × 31.5                            | 0.047 | 0.094                                    | 1410                        | 1210           | 16 × 15  | 0.055         | 0.11                                     | 1270                        | 1090           |  |               |
| 1200           | 122 | 12.5 × 20                            | 0.041 | 0.082                                    | 1430                        | 1250           | 16 × 15  | 0.046         | 0.092                                    | 1390                        | 1220           |  |               |
| 1500           | 152 | 12.5 × 25                            | 0.036 | 0.072                                    | 1700                        | 1490           | 18 × 15  | 0.041         | 0.082                                    | 1560                        | 1400           |  |               |
| 1800           | 182 | 12.5 × 31.5                          | 0.032 | 0.064                                    | 1880                        | 1690           | 16 × 20  | 0.037         | 0.074                                    | 1700                        | 1530           |  |               |
| 2200           | 222 | 12.5 × 31.5                          | 0.028 | 0.056                                    | 2010                        | 1800           | 16 × 20  | 0.033         | 0.066                                    | 1800                        | 1620           |  |               |
| 2700           | 272 | 12.5 × 35.5                          | 0.025 | 0.050                                    | 2230                        | 1990           | 16 × 25  | 0.030         | 0.060                                    | 2190                        | 1800           |  |               |
| 3300           | 332 | 12.5 × 40                            | 0.023 | 0.046                                    | 2460                        | 2160           | 18 × 20  | 0.027         | 0.054                                    | 2090                        | 1880           |  |               |
| 3900           | 392 | 16 × 31.5                            | 0.022 | 0.044                                    | 2510                        | 2220           | 18 × 25  | 0.025         | 0.050                                    | 2350                        | 2060           |  |               |
| 4700           | 472 | 16 × 35.5                            | 0.020 | 0.040                                    | 2770                        | 2410           | 18 × 31.5  | 0.023         | 0.046                                    | 2720                        | 2240           |  |               |
| 5600           | 562 | 16 × 40                              | 0.019 | 0.038                                    | 3110                        | 2530           | 18 × 35.5  | 0.022         | 0.044                                    | 2620                        | 2350           |  |               |
| 6800           | 682 | 18 × 35.5                            | 0.018 | 0.036                                    | 3050                        | 2610           |  |               |  |                             |                |  |               |
| 8200           | 822 | 18 × 40                              | 0.017 | 0.034                                    | 3300                        | 2730           |  |               |  |                             |                |  |               |

| Cap.( $\mu$ F) |     | V(Code)<br>Size Code<br>Item<br>Code |       | 25 (1E)                                  |                             |                |  |               |  |                             |                |  |               |
|----------------|-----|--------------------------------------|-------|--|-----------------------------|----------------|--|---------------|--|-----------------------------|----------------|--|---------------|
|                |     |                                      |       | —  |                             |                |  | 6             |  |                             |                |  |               |
|                |     |                                      |       | Case size<br>$\phi$ D $\times$ L<br>(mm) | Impedance ( $\Omega$ ) MAX. |                | Rated ripple (mArms)                                       |               | Case size<br>$\phi$ D $\times$ L<br>(mm) | Impedance ( $\Omega$ ) MAX. |                | Rated ripple (mArms)                                       |               |
|                |     |                                      |       |  | 20°C / 100kHz               | -10°C / 100kHz | 105°C / $\frac{10\text{kHz}}{200\text{kHz}}$ <sup>1)</sup> | 105°C / 120Hz |  | 20°C / 100kHz               | -10°C / 100kHz | 105°C / $\frac{10\text{kHz}}{200\text{kHz}}$ <sup>1)</sup> | 105°C / 120Hz |
| 33             | 330 | 5 × 11                               | 0.80  | 1.60                                     | 155                         | 88             |  |               |  |                             |                |  |               |
| 39             | 390 | 5 × 11                               | 0.65  | 1.30                                     | 175                         | 100            |  |               |  |                             |                |  |               |
| 47             | 470 | 6.3 × 11                             | 0.55  | 1.10                                     | 210                         | 125            |  |               |  |                             |                |  |               |
| 56             | 560 | 6.3 × 11                             | 0.44  | 0.88                                     | 235                         | 140            |  |               |  |                             |                |  |               |
| 68             | 680 | 6.3 × 11                             | 0.36  | 0.72                                     | 260                         | 160            |  |               |  |                             |                |  |               |
| 82             | 820 | 6.3 × 11                             | 0.30  | 0.60                                     | 285                         | 180            |  |               |  |                             |                |  |               |
| 100            | 101 | 6.3 × 15                             | 0.24  | 0.48                                     | 370                         | 245            |  |               |  |                             |                |  |               |
| 120            | 121 | 6.3 × 15                             | 0.20  | 0.40                                     | 405                         | 275            |  |               |  |                             |                |  |               |
| 150            | 151 | 8 × 11.5                             | 0.16  | 0.32                                     | 460                         | 320            |  |               |  |                             |                |  |               |
| 180            | 181 | 8 × 15                               | 0.14  | 0.28                                     | 550                         | 390            | 10 × 12.5  | 0.15          | 0.30                                     | 635                         | 395            |  |               |
| 220            | 221 | 8 × 15                               | 0.11  | 0.22                                     | 625                         | 455            | 10 × 12.5  | 0.13          | 0.26                                     | 670                         | 435            |  |               |
| 270            | 271 | 8 × 20                               | 0.095 | 0.19                                     | 750                         | 560            | 10 × 15  | 0.11          | 0.22                                     | 700                         | 525            |  |               |
| 330            | 331 | 8 × 20                               | 0.085 | 0.17                                     | 795                         | 610            | 10 × 15  | 0.095         | 0.19                                     | 825                         | 575            |  |               |
| 390            | 391 | 10 × 20                              | 0.070 | 0.14                                     | 985                         | 770            | 12.5 × 15  | 0.080         | 0.16                                     | 920                         | 720            |  |               |
| 470            | 471 | 10 × 20                              | 0.065 | 0.13                                     | 1060                        | 810            | 12.5 × 15  | 0.070         | 0.14                                     | 985                         | 785            |  |               |
| 560            | 561 | 10 × 25                              | 0.055 | 0.11                                     | 1260                        | 990            | 12.5 × 15  | 0.060         | 0.12                                     | 1060                        | 860            |  |               |
| 680            | 681 | 10 × 31.5                            | 0.046 | 0.092                                    | 1420                        | 1180           | 16 × 15  | 0.055         | 0.11                                     | 1270                        | 1050           |  |               |
| 820            | 821 | 12.5 × 20                            | 0.041 | 0.082                                    | 1440                        | 1210           | 16 × 15  | 0.049         | 0.098                                    | 1340                        | 1130           |  |               |
| 1000           | 102 | 12.5 × 25                            | 0.036 | 0.072                                    | 1700                        | 1430           | 18 × 15  | 0.043         | 0.086                                    | 1520                        | 1310           |  |               |
| 1200           | 122 | 12.5 × 25                            | 0.032 | 0.064                                    | 1760                        | 1550           | 18 × 15  | 0.039         | 0.078                                    | 1600                        | 1400           |  |               |
| 1500           | 152 | 12.5 × 31.5                          | 0.029 | 0.058                                    | 1980                        | 1780           | 16 × 20  | 0.034         | 0.068                                    | 1770                        | 1590           |  |               |
| 1800           | 182 | 12.5 × 35.5                          | 0.026 | 0.052                                    | 2230                        | 1960           | 16 × 25  | 0.031         | 0.062                                    | 2190                        | 1780           |  |               |
| 2200           | 222 | 12.5 × 40                            | 0.024 | 0.048                                    | 2460                        | 2120           | 18 × 20  | 0.028         | 0.056                                    | 2050                        | 1840           |  |               |
| 2700           | 272 | 16 × 31.5                            | 0.022 | 0.044                                    | 2510                        | 2220           | 18 × 25  | 0.025         | 0.050                                    | 2350                        | 2060           |  |               |
| 3300           | 332 | 16 × 35.5                            | 0.020 | 0.040                                    | 2770                        | 2410           | 18 × 31.5  | 0.023         | 0.046                                    | 2720                        | 2240           |  |               |
| 3900           | 392 | 16 × 40                              | 0.019 | 0.038                                    | 3110                        | 2530           | 18 × 35.5  | 0.021         | 0.042                                    | 3050                        | 2420           |  |               |
| 4700           | 472 | 18 × 40                              | 0.018 | 0.036                                    | 3300                        | 2660           |  |               |  |                             |                |  |               |

※ In case of low profile type, [6] will be put at 12th digit of type numbering system.

**PM** series

■ Standard Ratings

| Cap.(μF) |     | V(Code)<br>Size code<br>Item<br>Code |       | 35 (1V)                     |                    |                |   |               |                             |                    |                |   |               |
|----------|-----|--------------------------------------|-------|-----------------------------|--------------------|----------------|---|---------------|-----------------------------|--------------------|----------------|---|---------------|
|          |     |                                      |       | —                           |                    |                |   | 6             |                             |                    |                |   |               |
|          |     |                                      |       | Case size<br>ΦD × L<br>(mm) | Impedance (Ω) MAX. |                | Rated ripple (mArms)                          |               | Case size<br>ΦD × L<br>(mm) | Impedance (Ω) MAX. |                | Rated ripple (mArms)                          |               |
|          |     |                                      |       |                             | 20°C / 100kHz      | -10°C / 100kHz | 105°C / <sup>10kHz to</sup> <sub>200kHz</sub> | 105°C / 120Hz |                             | 20°C / 100kHz      | -10°C / 100kHz | 105°C / <sup>10kHz to</sup> <sub>200kHz</sub> | 105°C / 120Hz |
| 22       | 220 | 5 × 11                               | 0.75  | 1.50                        | 160                | 85             |   |               |                             |                    |                |   |               |
| 27       | 270 | 5 × 11                               | 0.60  | 1.20                        | 180                | 99             |   |               |                             |                    |                |   |               |
| 33       | 330 | 6.3 × 11                             | 0.49  | 0.98                        | 225                | 125            |   |               |                             |                    |                |   |               |
| 39       | 390 | 6.3 × 11                             | 0.41  | 0.82                        | 245                | 140            |   |               |                             |                    |                |   |               |
| 47       | 470 | 6.3 × 11                             | 0.34  | 0.68                        | 270                | 160            |   |               |                             |                    |                |   |               |
| 56       | 560 | 6.3 × 11                             | 0.28  | 0.56                        | 295                | 180            |   |               |                             |                    |                |   |               |
| 68       | 680 | 6.3 × 15                             | 0.24  | 0.48                        | 370                | 230            |   |               |                             |                    |                |   |               |
| 82       | 820 | 6.3 × 15                             | 0.19  | 0.38                        | 415                | 265            |   |               |                             |                    |                |   |               |
| 100      | 101 | 8 × 11.5                             | 0.16  | 0.32                        | 460                | 305            |   |               |                             |                    |                |   |               |
| 120      | 121 | 8 × 15                               | 0.14  | 0.28                        | 550                | 370            | 10 × 12.5                                     | 0.15          | 0.30                        | 635                | 375            |   |               |
| 150      | 151 | 8 × 15                               | 0.12  | 0.24                        | 595                | 415            | 10 × 12.5                                     | 0.12          | 0.24                        | 680                | 435            |   |               |
| 180      | 181 | 8 × 20                               | 0.10  | 0.20                        | 730                | 520            | 10 × 15                                       | 0.11          | 0.22                        | 700                | 500            |   |               |
| 220      | 221 | 8 × 20                               | 0.085 | 0.17                        | 795                | 580            | 10 × 15                                       | 0.090         | 0.18                        | 825                | 560            |   |               |
| 270      | 271 | 10 × 20                              | 0.070 | 0.14                        | 985                | 735            | 12.5 × 15                                     | 0.080         | 0.16                        | 920                | 690            |   |               |
| 330      | 331 | 10 × 20                              | 0.060 | 0.12                        | 1060               | 810            | 12.5 × 15                                     | 0.065         | 0.13                        | 1020               | 780            |   |               |
| 390      | 391 | 10 × 25                              | 0.055 | 0.11                        | 1260               | 955            | 12.5 × 15                                     | 0.060         | 0.12                        | 1060               | 825            |   |               |
| 470      | 471 | 10 × 31.5                            | 0.046 | 0.092                       | 1450               | 1130           | 16 × 15                                       | 0.055         | 0.11                        | 1270               | 1010           |   |               |
| 560      | 561 | 12.5 × 20                            | 0.041 | 0.082                       | 1430               | 1160           | 16 × 15                                       | 0.048         | 0.096                       | 1360               | 1100           |   |               |
| 680      | 681 | 12.5 × 25                            | 0.036 | 0.072                       | 1700               | 1370           | 18 × 15                                       | 0.042         | 0.084                       | 1540               | 1270           |   |               |
| 820      | 821 | 12.5 × 25                            | 0.032 | 0.064                       | 1760               | 1490           | 18 × 15                                       | 0.038         | 0.076                       | 1620               | 1370           |   |               |
| 1000     | 102 | 12.5 × 31.5                          | 0.029 | 0.058                       | 1980               | 1710           | 16 × 20                                       | 0.034         | 0.068                       | 1770               | 1530           |   |               |
| 1200     | 122 | 12.5 × 35.5                          | 0.026 | 0.052                       | 2230               | 1920           | 16 × 25                                       | 0.031         | 0.062                       | 2190               | 1740           |   |               |
| 1500     | 152 | 12.5 × 40                            | 0.024 | 0.048                       | 2460               | 2120           | 18 × 20                                       | 0.028         | 0.056                       | 2050               | 1840           |   |               |
| 1800     | 182 | 16 × 31.5                            | 0.022 | 0.044                       | 2510               | 2220           | 18 × 25                                       | 0.025         | 0.050                       | 2350               | 2060           |   |               |
| 2200     | 222 | 16 × 35.5                            | 0.020 | 0.040                       | 2770               | 2410           | 18 × 31.5                                     | 0.023         | 0.046                       | 2720               | 2240           |   |               |
| 2700     | 272 | 16 × 40                              | 0.018 | 0.036                       | 3110               | 2610           | 18 × 35.5                                     | 0.021         | 0.042                       | 3050               | 2420           |   |               |
| 3300     | 332 | 18 × 40                              | 0.017 | 0.034                       | 3300               | 2730           |   |               |                             |                    |                |   |               |

| Cap.(μF) |     | V(Code)<br>Size code<br>Item<br>Code |       | 50 (1H)                     |                    |                |   |               |                             |                    |                |   |               |
|----------|-----|--------------------------------------|-------|-----------------------------|--------------------|----------------|---|---------------|-----------------------------|--------------------|----------------|---|---------------|
|          |     |                                      |       | —                           |                    |                |   | 6             |                             |                    |                |   |               |
|          |     |                                      |       | Case size<br>ΦD × L<br>(mm) | Impedance (Ω) MAX. |                | Rated ripple (mArms)                          |               | Case size<br>ΦD × L<br>(mm) | Impedance (Ω) MAX. |                | Rated ripple (mArms)                          |               |
|          |     |                                      |       |                             | 20°C / 100kHz      | -10°C / 100kHz | 105°C / <sup>10kHz to</sup> <sub>200kHz</sub> | 105°C / 120Hz |                             | 20°C / 100kHz      | -10°C / 100kHz | 105°C / <sup>10kHz to</sup> <sub>200kHz</sub> | 105°C / 120Hz |
| 0.47     | R47 | 5 × 11                               | 23.0  | 46.0                        | 22                 | 11             |   |               |                             |                    |                |   |               |
| 0.68     | R68 | 5 × 11                               | 16.0  | 32.0                        | 28                 | 14             |   |               |                             |                    |                |   |               |
| 1        | 010 | 5 × 11                               | 11.0  | 22.0                        | 36                 | 18             |   |               |                             |                    |                |   |               |
| 1.5      | 1R5 | 5 × 11                               | 7.50  | 15.0                        | 45                 | 22             |   |               |                             |                    |                |   |               |
| 2.2      | 2R2 | 5 × 11                               | 5.00  | 10.0                        | 54                 | 27             |   |               |                             |                    |                |   |               |
| 3.3      | 3R3 | 5 × 11                               | 3.30  | 6.60                        | 66                 | 33             |   |               |                             |                    |                |   |               |
| 4.7      | 4R7 | 5 × 11                               | 2.20  | 4.40                        | 81                 | 40             |   |               |                             |                    |                |   |               |
| 6.8      | 6R8 | 5 × 11                               | 1.80  | 3.60                        | 91                 | 45             |   |               |                             |                    |                |   |               |
| 10       | 100 | 5 × 11                               | 1.40  | 2.80                        | 115                | 57             |   |               |                             |                    |                |   |               |
| 12       | 120 | 5 × 11                               | 1.20  | 2.40                        | 125                | 62             |   |               |                             |                    |                |   |               |
| 15       | 150 | 5 × 11                               | 0.93  | 1.86                        | 145                | 72             |   |               |                             |                    |                |   |               |
| 18       | 180 | 5 × 11                               | 0.80  | 1.60                        | 165                | 79             |   |               |                             |                    |                |   |               |
| 22       | 220 | 6.3 × 11                             | 0.65  | 1.30                        | 195                | 100            |   |               |                             |                    |                |   |               |
| 27       | 270 | 6.3 × 11                             | 0.53  | 1.06                        | 215                | 115            |   |               |                             |                    |                |   |               |
| 33       | 330 | 6.3 × 11                             | 0.43  | 0.86                        | 240                | 135            |   |               |                             |                    |                |   |               |
| 39       | 390 | 6.3 × 11                             | 0.36  | 0.72                        | 260                | 150            |   |               |                             |                    |                |   |               |
| 47       | 470 | 6.3 × 15                             | 0.30  | 0.60                        | 330                | 195            |   |               |                             |                    |                |   |               |
| 56       | 560 | 6.3 × 15                             | 0.25  | 0.50                        | 360                | 220            |   |               |                             |                    |                |   |               |
| 68       | 680 | 8 × 11.5                             | 0.20  | 0.40                        | 415                | 255            |   |               |                             |                    |                |   |               |
| 82       | 820 | 8 × 15                               | 0.17  | 0.34                        | 505                | 320            | 10 × 12.5                                     | 0.18          | 0.36                        | 530                | 330            |   |               |
| 100      | 101 | 8 × 20                               | 0.14  | 0.28                        | 620                | 410            | 10 × 15                                       | 0.16          | 0.32                        | 580                | 385            |   |               |
| 120      | 121 | 8 × 20                               | 0.12  | 0.24                        | 755                | 455            | 10 × 15                                       | 0.13          | 0.26                        | 755                | 435            |   |               |
| 150      | 151 | 10 × 20                              | 0.10  | 0.20                        | 820                | 570            | 12.5 × 15                                     | 0.11          | 0.22                        | 785                | 545            |   |               |
| 180      | 181 | 10 × 20                              | 0.085 | 0.17                        | 945                | 635            | 12.5 × 15                                     | 0.095         | 0.19                        | 845                | 605            |   |               |
| 220      | 221 | 10 × 25                              | 0.075 | 0.15                        | 1150               | 760            | 12.5 × 15                                     | 0.080         | 0.16                        | 920                | 670            |   |               |
| 270      | 271 | 10 × 31.5                            | 0.065 | 0.13                        | 1200               | 900            | 16 × 15                                       | 0.070         | 0.14                        | 1120               | 840            |   |               |
| 330      | 331 | 10 × 31.5                            | 0.055 | 0.11                        | 1300               | 995            | 16 × 15                                       | 0.060         | 0.12                        | 1210               | 925            |   |               |
| 390      | 391 | 12.5 × 25                            | 0.048 | 0.096                       | 1440               | 1120           | 16 × 15                                       | 0.055         | 0.11                        | 1270               | 990            |   |               |
| 470      | 471 | 12.5 × 25                            | 0.044 | 0.088                       | 1500               | 1190           | 16 × 15                                       | 0.046         | 0.092                       | 1470               | 1170           |   |               |
| 560      | 561 | 12.5 × 31.5                          | 0.040 | 0.080                       | 1720               | 1360           | 16 × 20                                       | 0.044         | 0.088                       | 1550               | 1260           |   |               |
| 680      | 681 | 12.5 × 35.5                          | 0.036 | 0.072                       | 1900               | 1530           | 16 × 20                                       | 0.040         | 0.080                       | 1630               | 1350           |   |               |
| 820      | 821 | 12.5 × 40                            | 0.033 | 0.066                       | 2120               | 1700           | 18 × 20                                       | 0.036         | 0.072                       | 1810               | 1530           |   |               |
| 1000     | 102 | 16 × 31.5                            | 0.030 | 0.060                       | 2150               | 1830           | 18 × 25                                       | 0.033         | 0.066                       | 2020               | 1730           |   |               |
| 1200     | 122 | 16 × 35.5                            | 0.028 | 0.056                       | 2320               | 1990           | 18 × 31.5                                     | 0.031         | 0.062                       | 2140               | 1880           |   |               |
| 1500     | 152 | 16 × 40                              | 0.026 | 0.052                       | 2650               | 2170           | 18 × 31.5                                     | 0.029         | 0.058                       | 2340               | 1990           |   |               |
| 1800     | 182 | 18 × 35.5                            | 0.025 | 0.050                       | 2620               | 2210           |   |               |                             |                    |                |   |               |
| 2200     | 222 | 18 × 40                              | 0.024 | 0.048                       | 2790               | 2300           |   |               |                             |                    |                |   |               |

※ In case of low profile type, [6] will be put at 12th digit of type numbering system.



## Standard Ratings

| Cap. (μF) | Code | Item        | 63 (1J)                     |                    |                |                         |               |                             |                    |                |                         |               |
|-----------|------|-------------|-----------------------------|--------------------|----------------|-------------------------|---------------|-----------------------------|--------------------|----------------|-------------------------|---------------|
|           |      |             | Case size<br>φD × L<br>(mm) | Impedance (Ω) MAX. |                | Rated ripple (mA rms)   |               | Case size<br>φD × L<br>(mm) | Impedance (Ω) MAX. |                | Rated ripple (mA rms)   |               |
|           |      |             |                             | —                  |                | 6                       |               |                             | —                  |                | 6                       |               |
|           |      |             |                             | 20°C / 100kHz      | -10°C / 100kHz | 105°C / 10kHz to 200kHz | 105°C / 120Hz |                             | 20°C / 100kHz      | -10°C / 100kHz | 105°C / 10kHz to 200kHz | 105°C / 120Hz |
| 10        | 100  | 5 × 11      | 1.06                        | 2.12               | 135            | 67                      |               |                             |                    |                |                         |               |
| 12        | 120  | 5 × 11      | 0.93                        | 1.86               | 145            | 72                      |               |                             |                    |                |                         |               |
| 15        | 150  | 6.3 × 11    | 0.73                        | 1.46               | 185            | 92                      |               |                             |                    |                |                         |               |
| 18        | 180  | 6.3 × 11    | 0.63                        | 1.26               | 195            | 100                     |               |                             |                    |                |                         |               |
| 22        | 220  | 6.3 × 11    | 0.52                        | 1.04               | 215            | 110                     |               |                             |                    |                |                         |               |
| 27        | 270  | 6.3 × 11    | 0.43                        | 0.86               | 240            | 130                     |               |                             |                    |                |                         |               |
| 33        | 330  | 6.3 × 15    | 0.35                        | 0.70               | 305            | 170                     |               |                             |                    |                |                         |               |
| 39        | 390  | 6.3 × 15    | 0.30                        | 0.60               | 330            | 190                     |               |                             |                    |                |                         |               |
| 47        | 470  | 8 × 11.5    | 0.25                        | 0.50               | 365            | 215                     |               |                             |                    |                |                         |               |
| 56        | 560  | 8 × 15      | 0.21                        | 0.42               | 450            | 275                     | 10 × 12.5     | 0.23                        | 0.46               | 450            | 275                     |               |
| 68        | 680  | 8 × 15      | 0.17                        | 0.34               | 500            | 315                     | 10 × 12.5     | 0.19                        | 0.38               | 495            | 310                     |               |
| 82        | 820  | 8 × 20      | 0.15                        | 0.30               | 600            | 385                     | 10 × 15       | 0.16                        | 0.32               | 580            | 375                     |               |
| 100       | 101  | 10 × 20     | 0.12                        | 0.24               | 750            | 495                     | 12.5 × 15     | 0.14                        | 0.28               | 695            | 460                     |               |
| 120       | 121  | 10 × 20     | 0.10                        | 0.20               | 820            | 555                     | 12.5 × 15     | 0.12                        | 0.24               | 750            | 510                     |               |
| 150       | 151  | 10 × 25     | 0.090                       | 0.18               | 950            | 665                     | 12.5 × 15     | 0.095                       | 0.19               | 845            | 590                     |               |
| 180       | 181  | 10 × 31.5   | 0.075                       | 0.15               | 1110           | 790                     | 16 × 15       | 0.080                       | 0.16               | 1050           | 750                     |               |
| 220       | 221  | 12.5 × 20   | 0.065                       | 0.13               | 1140           | 835                     | 16 × 15       | 0.070                       | 0.14               | 1120           | 820                     |               |
| 270       | 271  | 12.5 × 25   | 0.055                       | 0.11               | 1340           | 1000                    | 18 × 15       | 0.060                       | 0.12               | 1290           | 965                     |               |
| 330       | 331  | 12.5 × 25   | 0.049                       | 0.098              | 1420           | 1090                    | 18 × 15       | 0.050                       | 0.10               | 1410           | 1080                    |               |
| 390       | 391  | 12.5 × 31.5 | 0.043                       | 0.086              | 1620           | 1260                    | 16 × 20       | 0.047                       | 0.094              | 1500           | 1170                    |               |
| 470       | 471  | 12.5 × 35.5 | 0.039                       | 0.078              | 1780           | 1420                    | 16 × 25       | 0.042                       | 0.084              | 1700           | 1350                    |               |
| 560       | 561  | 12.5 × 40   | 0.035                       | 0.070              | 1950           | 1580                    | 18 × 20       | 0.039                       | 0.078              | 1730           | 1400                    |               |
| 680       | 681  | 16 × 31.5   | 0.032                       | 0.064              | 2050           | 1700                    | 18 × 25       | 0.035                       | 0.070              | 1940           | 1610                    |               |
| 820       | 821  | 16 × 35.5   | 0.029                       | 0.058              | 2220           | 1880                    | 18 × 31.5     | 0.032                       | 0.064              | 2110           | 1780                    |               |
| 1000      | 102  | 16 × 40     | 0.027                       | 0.054              | 2370           | 2050                    | 18 × 35.5     | 0.029                       | 0.058              | 2280           | 1970                    |               |
| 1200      | 122  | 18 × 40     | 0.025                       | 0.050              | 2510           | 2210                    |               |                             |                    |                |                         |               |

| Cap. (μF) | Code | Item        | 80 (1K)                     |                    |                |                         |               |                             |                    |                |                         |               |
|-----------|------|-------------|-----------------------------|--------------------|----------------|-------------------------|---------------|-----------------------------|--------------------|----------------|-------------------------|---------------|
|           |      |             | Case size<br>φD × L<br>(mm) | Impedance (Ω) MAX. |                | Rated ripple (mA rms)   |               | Case size<br>φD × L<br>(mm) | Impedance (Ω) MAX. |                | Rated ripple (mA rms)   |               |
|           |      |             |                             | —                  |                | 6                       |               |                             | —                  |                | 6                       |               |
|           |      |             |                             | 20°C / 100kHz      | -10°C / 100kHz | 105°C / 10kHz to 200kHz | 105°C / 120Hz |                             | 20°C / 100kHz      | -10°C / 100kHz | 105°C / 10kHz to 200kHz | 105°C / 120Hz |
| 4.7       | 4R7  | 5 × 11      | 4.20                        | 11.00              | 53             | 26                      |               |                             |                    |                |                         |               |
| 6.8       | 6R8  | 5 × 11      | 2.60                        | 7.00               | 68             | 34                      |               |                             |                    |                |                         |               |
| 10        | 100  | 6.3 × 11    | 1.70                        | 4.60               | 87             | 43                      |               |                             |                    |                |                         |               |
| 12        | 120  | 6.3 × 11    | 1.40                        | 3.80               | 96             | 48                      |               |                             |                    |                |                         |               |
| 15        | 150  | 6.3 × 11    | 1.20                        | 3.20               | 104            | 52                      |               |                             |                    |                |                         |               |
| 18        | 180  | 6.3 × 11    | 1.00                        | 2.70               | 150            | 58                      |               |                             |                    |                |                         |               |
| 22        | 220  | 6.3 × 15    | 0.77                        | 2.10               | 180            | 71                      |               |                             |                    |                |                         |               |
| 27        | 270  | 6.3 × 15    | 0.63                        | 1.70               | 220            | 80                      |               |                             |                    |                |                         |               |
| 33        | 330  | 8 × 11.5    | 0.53                        | 1.40               | 275            | 132                     |               |                             |                    |                |                         |               |
| 39        | 390  | 8 × 15      | 0.46                        | 1.20               | 300            | 156                     | 10 × 12.5     | 0.49                        | 1.30               | 380            | 155                     |               |
| 47        | 470  | 8 × 15      | 0.39                        | 1.10               | 360            | 175                     | 10 × 12.5     | 0.42                        | 1.10               | 410            | 174                     |               |
| 56        | 560  | 8 × 20      | 0.34                        | 0.92               | 490            | 208                     | 10 × 15       | 0.36                        | 0.97               | 500            | 202                     |               |
| 68        | 680  | 10 × 20     | 0.28                        | 0.76               | 570            | 264                     | 12.5 × 15     | 0.31                        | 0.84               | 520            | 249                     |               |
| 82        | 820  | 10 × 20     | 0.25                        | 0.68               | 620            | 284                     | 12.5 × 15     | 0.27                        | 0.73               | 560            | 273                     |               |
| 100       | 101  | 10 × 25     | 0.21                        | 0.57               | 795            | 347                     | 12.5 × 15     | 0.23                        | 0.62               | 605            | 308                     |               |
| 120       | 121  | 10 × 31.5   | 0.18                        | 0.49               | 870            | 406                     | 16 × 15       | 0.20                        | 0.54               | 663            | 444                     |               |
| 150       | 151  | 10 × 31.5   | 0.15                        | 0.41               | 955            | 459                     | 16 × 15       | 0.18                        | 0.47               | 699            | 484                     |               |
| 180       | 181  | 12.5 × 25   | 0.13                        | 0.35               | 1040           | 520                     | 16 × 15       | 0.15                        | 0.41               | 766            | 543                     |               |
| 220       | 221  | 12.5 × 31.5 | 0.12                        | 0.32               | 1160           | 595                     | 18 × 15       | 0.13                        | 0.35               | 881            | 643                     |               |
| 270       | 271  | 12.5 × 31.5 | 0.10                        | 0.27               | 1270           | 667                     | 16 × 20       | 0.11                        | 0.30               | 1240           | 742                     |               |
| 330       | 331  | 12.5 × 35.5 | 0.088                       | 0.24               | 1450           | 767                     | 16 × 25       | 0.099                       | 0.27               | 1440           | 874                     |               |
| 390       | 391  | 12.5 × 40   | 0.078                       | 0.21               | 1610           | 822                     | 18 × 20       | 0.089                       | 0.24               | 1450           | 908                     |               |
| 470       | 471  | 16 × 31.5   | 0.069                       | 0.19               | 1790           | 1150                    | 18 × 25       | 0.080                       | 0.22               | 1650           | 1060                    |               |
| 560       | 561  | 16 × 35.5   | 0.062                       | 0.17               | 2000           | 1300                    | 18 × 31.5     | 0.072                       | 0.19               | 1750           | 1210                    |               |
| 680       | 681  | 16 × 40     | 0.055                       | 0.15               | 2200           | 1470                    | 18 × 31.5     | 0.065                       | 0.18               | 1850           | 1300                    |               |
| 820       | 821  | 18 × 35.5   | 0.049                       | 0.13               | 2250           | 1590                    |               |                             |                    |                |                         |               |
| 1000      | 102  | 18 × 40     | 0.044                       | 0.12               | 2370           | 1790                    |               |                             |                    |                |                         |               |

※ In case of low profile type, [6] will be put at 12th digit of type numbering system.

## Standard Ratings

| Cap. (μF) | V(Code)<br>Size code<br>Code | Item        | 100 (2A)                    |                    |                |                         |               |                    |                |                         |               |  |
|-----------|------------------------------|-------------|-----------------------------|--------------------|----------------|-------------------------|---------------|--------------------|----------------|-------------------------|---------------|--|
|           |                              |             | Case size<br>φD × L<br>(mm) | —                  |                |                         |               | 6                  |                |                         |               |  |
|           |                              |             |                             | Impedance (Ω) MAX. |                | Rated ripple (mA rms)   |               | Impedance (Ω) MAX. |                | Rated ripple (mA rms)   |               |  |
|           |                              |             |                             | 20°C / 100kHz      | -10°C / 100kHz | 105°C / 10kHz to 200kHz | 105°C / 120Hz | 20°C / 100kHz      | -10°C / 100kHz | 105°C / 10kHz to 200kHz | 105°C / 120Hz |  |
| 0.47      | R47                          | 5 × 11      | 43.0                        | 116.0              | 17             | 8                       |               |                    |                |                         |               |  |
| 0.68      | R68                          | 5 × 11      | 23.0                        | 62.0               | 23             | 11                      |               |                    |                |                         |               |  |
| 1         | 010                          | 5 × 11      | 17.0                        | 46.0               | 27             | 13                      |               |                    |                |                         |               |  |
| 1.5       | 1R5                          | 5 × 11      | 10.0                        | 27.0               | 35             | 17                      |               |                    |                |                         |               |  |
| 2.2       | 2R2                          | 5 × 11      | 6.60                        | 18.0               | 43             | 21                      |               |                    |                |                         |               |  |
| 3.3       | 3R3                          | 5 × 11      | 4.10                        | 11.0               | 54             | 27                      |               |                    |                |                         |               |  |
| 4.7       | 4R7                          | 6.3 × 11    | 2.80                        | 7.60               | 68             | 34                      |               |                    |                |                         |               |  |
| 6.8       | 6R8                          | 6.3 × 11    | 1.90                        | 5.10               | 83             | 41                      |               |                    |                |                         |               |  |
| 10        | 100                          | 6.3 × 11    | 1.20                        | 3.20               | 104            | 52                      |               |                    |                |                         |               |  |
| 12        | 120                          | 6.3 × 11    | 1.00                        | 2.70               | 150            | 57                      |               |                    |                |                         |               |  |
| 15        | 150                          | 6.3 × 15    | 0.81                        | 2.20               | 180            | 65                      |               |                    |                |                         |               |  |
| 18        | 180                          | 6.3 × 15    | 0.67                        | 1.80               | 220            | 73                      |               |                    |                |                         |               |  |
| 22        | 220                          | 8 × 11.5    | 0.55                        | 1.50               | 275            | 122                     |               |                    |                |                         |               |  |
| 27        | 270                          | 8 × 15      | 0.47                        | 1.30               | 300            | 146                     | 10 × 12.5     | 0.50               | 1.40           | 380                     | 145           |  |
| 33        | 330                          | 8 × 15      | 0.38                        | 1.00               | 360            | 169                     | 10 × 12.5     | 0.42               | 1.10           | 410                     | 166           |  |
| 39        | 390                          | 8 × 20      | 0.33                        | 0.89               | 490            | 202                     | 10 × 15       | 0.36               | 0.97           | 500                     | 193           |  |
| 47        | 470                          | 10 × 20     | 0.28                        | 0.76               | 570            | 252                     | 12.5 × 15     | 0.31               | 0.84           | 520                     | 239           |  |
| 56        | 560                          | 10 × 20     | 0.24                        | 0.65               | 620            | 274                     | 12.5 × 15     | 0.27               | 0.73           | 560                     | 258           |  |
| 68        | 680                          | 10 × 25     | 0.21                        | 0.57               | 795            | 326                     | 12.5 × 15     | 0.23               | 0.62           | 605                     | 289           |  |
| 82        | 820                          | 10 × 31.5   | 0.18                        | 0.49               | 870            | 386                     | 16 × 15       | 0.19               | 0.51           | 681                     | 433           |  |
| 100       | 101                          | 10 × 31.5   | 0.15                        | 0.41               | 955            | 438                     | 16 × 15       | 0.17               | 0.46           | 719                     | 475           |  |
| 120       | 121                          | 12.5 × 25   | 0.13                        | 0.35               | 1040           | 519                     | 16 × 15       | 0.14               | 0.38           | 793                     | 531           |  |
| 150       | 151                          | 12.5 × 25   | 0.11                        | 0.30               | 1120           | 553                     | 18 × 15       | 0.12               | 0.32           | 917                     | 635           |  |
| 180       | 181                          | 12.5 × 31.5 | 0.098                       | 0.26               | 1270           | 641                     | 16 × 20       | 0.11               | 0.30           | 1240                    | 706           |  |
| 220       | 221                          | 12.5 × 35.5 | 0.087                       | 0.23               | 1450           | 730                     | 16 × 25       | 0.093              | 0.25           | 1440                    | 854           |  |
| 270       | 271                          | 12.5 × 40   | 0.072                       | 0.19               | 1610           | 843                     | 18 × 20       | 0.080              | 0.22           | 1450                    | 918           |  |
| 330       | 331                          | 16 × 31.5   | 0.062                       | 0.17               | 1790           | 1160                    | 18 × 25       | 0.070              | 0.19           | 1650                    | 1080          |  |
| 390       | 391                          | 16 × 35.5   | 0.053                       | 0.14               | 2000           | 1340                    | 18 × 31.5     | 0.062              | 0.17           | 1850                    | 1240          |  |
| 470       | 471                          | 16 × 40     | 0.047                       | 0.13               | 2200           | 1530                    | 18 × 35.5     | 0.056              | 0.15           | 1970                    | 1410          |  |
| 560       | 561                          | 18 × 35.5   | 0.041                       | 0.11               | 2250           | 1680                    |               |                    |                |                         |               |  |
| 680       | 681                          | 18 × 40     | 0.036                       | 0.097              | 2300           | 1910                    |               |                    |                |                         |               |  |

※ In case of low profile type, 6 will be put at 12th digit of type numbering system.

| Cap. (μF) | V(Code)<br>Code | 160       |     | 200       |     | 250       |     | 315       |     | 350       |     | 400       |     | 450                      |     |
|-----------|-----------------|-----------|-----|-----------|-----|-----------|-----|-----------|-----|-----------|-----|-----------|-----|--------------------------|-----|
|           |                 | 2C        | 2D  | 2E        | 2F  | 2V        | 2G  | 2W        |     |           |     |           |     |                          |     |
| 1         | 010             | 8 × 11.5  | 19  | 8 × 11.5  | 19  | 8 × 11.5  | 19  | 8 × 11.5  | 19  | 10 × 12.5 | 21  | 10 × 12.5 | 17  | 10 × 15                  | 17  |
| 2.2       | 2R2             | 8 × 11.5  | 30  | 8 × 11.5  | 30  | 10 × 12.5 | 32  | 10 × 12.5 | 32  | 10 × 15   | 34  | 10 × 15   | 28  | 10 × 20                  | 28  |
| 3.3       | 3R3             | 10 × 12.5 | 50  | 10 × 12.5 | 50  | 10 × 15   | 52  | 10 × 15   | 52  | 10 × 20   | 54  | 10 × 20   | 47  | 12.5 × 20                | 48  |
| 4.7       | 4R7             | 10 × 12.5 | 57  | 10 × 15   | 60  | 10 × 15   | 60  | 10 × 20   | 65  | 10 × 20   | 65  | 12.5 × 20 | 55  | 12.5 × 25                | 55  |
| 10        | 100             | 10 × 15   | 90  | 10 × 20   | 95  | 12.5 × 20 | 98  | 12.5 × 20 | 98  | 12.5 × 25 | 100 | 12.5 × 25 | 85  | 16 × 25                  | 90  |
| 22        | 220             | 12.5 × 20 | 140 | 12.5 × 25 | 145 | 16 × 25   | 150 | 16 × 25   | 150 | 16 × 25   | 150 | 16 × 31.5 | 130 | 16 × 35.5                | 135 |
| 33        | 330             | 12.5 × 25 | 175 | 16 × 25   | 180 | 16 × 25   | 180 | 16 × 31.5 | 185 | 16 × 35.5 | 190 | 18 × 35.5 | 170 | 18 × 40                  | 170 |
| 47        | 470             | 16 × 25   | 220 | 16 × 25   | 220 | 16 × 31.5 | 225 | 18 × 35.5 | 235 | 18 × 40   | 240 |           |     |                          |     |
| 100       | 101             | 16 × 35.5 | 330 | 18 × 40   | 345 | 18 × 40   | 345 |           |     |           |     |           |     | Case size<br>φD × L (mm) | ※   |

※ Rated ripple current (mA rms) at 105°C 120Hz





Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

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