

Aluminum Capacitors +85 °C, Snap-In


FEATURES

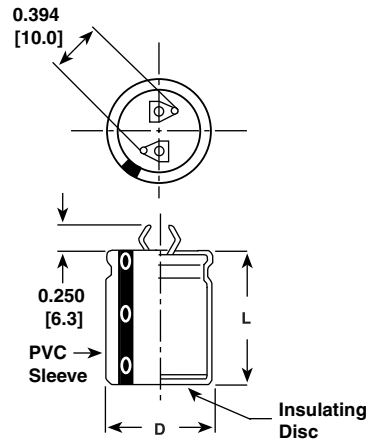
- Useful life: 2000 h at +85 °C
- General purpose
- Polarized aluminum electrolytic capacitors, non-solid electrolyte
- High ripple capability
- Material categorization: For definitions of compliance please see www.vishay.com/doc?99912


RoHS
COMPLIANT

| QUICK REFERENCE DATA | |
|---|---|
| DESCRIPTION | VALUE |
| Nominal case size Ø D x L in inches (mm) | 1.38 x 3.15 (35.0 x 80.0) |
| Operating temperature | -40 °C to +85 °C |
| Rated capacitance range, C _R | 82 µF to 56 000 µF |
| Tolerance on C _R | -10 %, +30 % |
| Rated voltage range, U _R | 6.3 WV _{DC} to 250 WV _{DC} |
| Termination | Snap mount |
| Life validation test 2000 h at 85 °C | $\Delta\text{CAP} \leq 15\%$ from initial measurement. $\Delta\text{ESR} \leq 1.5 \times$ initial specified limit. $\Delta\text{DCL} \leq$ initial specified limit |
| Shelf life 500 h at 85 °C | $\Delta\text{CAP} \leq 15\%$ from initial measurement. $\Delta\text{ESR} \leq 1.3 \times$ initial specified limit. $\Delta\text{DCL} \leq 2 \times$ initial specified limit |
| DC leakage current | $I = k\sqrt{CV}$ k = 4.0 at +25 °C I in µA, C in µF, V in Volts |

| RIPPLE CURRENT MULTIPLIERS | | | |
|---|--------------|-------------|-------------|
| TEMPERATURE | | | |
| AMBIENT TEMPERATURE | | MULTIPLIERS | |
| -55 °C | | 2.0 | |
| -65 °C | | 1.7 | |
| -75 °C | | 1.4 | |
| -85 °C | | 1.0 | |
| FREQUENCY (Hz) | | | |
| WV _{DC} | 50 TO 60 | 300 TO 1000 | 1000 AND UP |
| 0 to 49 | 0.85 | 1.10 | 1.15 |
| 50 to 199 | 0.83 | 1.15 | 1.20 |
| 200 to 250 | 0.80 | 1.30 | 1.40 |
| ESL (TYPICAL VALUES AT 1 MHz TO 10 MHz) | | | |
| Nominal Diameter | 0.984 (25.0) | 1.18 (30.0) | 1.38 (35.0) |
| Typical ESL (nH) | 8.0 | 10.0 | 12.0 |

| DIMENSIONS in inches (millimeters) | | | | | | | | | |
|------------------------------------|---------------------------|--|-----------------|--|-----------|---------------------------|--|-----------------|--|
| CASE CODE | DIAMETER | | LENGTH | | CASE CODE | DIAMETER | | LENGTH | |
| | D + 0.039/- 0 (+ 1.0/- 0) | | L ± 0.079 (2.0) | | | D + 0.039/- 0 (+ 1.0/- 0) | | L ± 0.079 (2.0) | |
| JA | 1.00 (25.0) | | 1.00 (25.0) | | KD | 1.18 (30.0) | | 1.57 (40.0) | |
| JB | 1.00 (25.0) | | 1.18 (30.0) | | KE | 1.18 (30.0) | | 2.00 (50.0) | |
| JC | 1.00 (25.0) | | 1.38 (35.0) | | MB | 1.38 (35.0) | | 1.18 (30.0) | |
| JD | 1.00 (25.0) | | 1.57 (40.0) | | MC | 1.38 (35.0) | | 1.38 (35.0) | |
| JE | 1.00 (25.0) | | 2.00 (50.0) | | MD | 1.38 (35.0) | | 1.57 (40.0) | |
| KA | 1.18 (30.0) | | 1.00 (25.0) | | ME | 1.38 (35.0) | | 2.00 (50.0) | |
| KB | 1.18 (30.0) | | 1.18 (30.0) | | MF | 1.38 (35.0) | | 2.50 (63.0) | |
| KC | 1.18 (30.0) | | 1.38 (35.0) | | MG | 1.38 (35.0) | | 3.18 (80.0) | |

DIMENSIONAL AND AVAILABLE FORMS
STYLE D

ORDERING EXAMPLE

Electrolytic capacitor 80D series: 80D122P200ME2DE3

| DESCRIPTION | |
|-------------|------------------------------------|
| CODE | EXPLANATION |
| 80D | Product type |
| 122 | Capacitance value (1200 μ F) |
| P | Tolerance (P = -10 %/+30 %) |
| 200 | Voltage rating at 85 °C (200 V) |
| ME | Can size (see dimensions table) |
| 2 | PVC insulating sleeve |
| D | Terminal style (D = 2 pin snap-in) |
| E3 | RoHS compliant |

| ELECTRICAL DATA AND ORDERING INFORMATION | | | | | | |
|---|------------------|----------------------------|------------------------|------------------|---------------------------|------------------|
| CAPACITANCE (μ F) | PART NUMBER | NOMINAL CASE SIZE D x L | MAX. ESR (m Ω) | | MAX. RIPPLE AT +85 °C (A) | |
| | | | 120 Hz | 10 kHz TO 40 kHz | 120 Hz | 10 kHz TO 40 kHz |
| 16 WV_{DC} AT +85 °C, SURGE = 20 V | | | | | | |
| 8200.0 | 80D822P016JB2DE3 | 0.984 x 1.18 (25.0 x 30.0) | 73.0 | 65.0 | 3.3 | 3.6 |
| 8200.0 | 80D822P016KA2DE3 | 1.18 x 0.984 (30.0 x 25.0) | 91.0 | 84.0 | 2.8 | 3.0 |
| 10 000.0 | 80D103P016JC2DE3 | 0.984 x 1.38 (25.0 x 35.0) | 59.0 | 53.0 | 3.9 | 4.2 |
| 15 000.0 | 80D153P016JE2DE3 | 0.984 x 1.97 (25.0 x 50.0) | 37.0 | 33.0 | 5.6 | 6.0 |
| 22 000.0 | 80D223P016KE2DE3 | 1.18 x 1.97 (30.0 x 50.0) | 35.0 | 32.0 | 5.8 | 6.1 |
| 33 000.0 | 80D333P016ME2DE3 | 1.38 x 1.97 (35.0 x 50.0) | 19.0 | 17.0 | 9.4 | 10.0 |
| 25 WV_{DC} AT +85 °C, SURGE = 30 V | | | | | | |
| 4700.0 | 80D472P025JB2DE3 | 0.984 x 1.18 (25.0 x 30.0) | 76.0 | 65.0 | 3.2 | 3.6 |
| 6800.0 | 80D682P025KB2DE3 | 1.18 x 1.18 (30.0 x 30.0) | 71.0 | 63.0 | 3.4 | 3.6 |
| 10 000.0 | 80D103P025JE2DE3 | 0.984 x 1.97 (25.0 x 50.0) | 39.0 | 33.0 | 5.4 | 6.0 |
| 10 000.0 | 80D103P025MB2DE3 | 1.38 x 1.18 (35.0 x 30.0) | 38.0 | 33.0 | 5.5 | 6.2 |
| 15 000.0 | 80D153P025KE2DE3 | 1.18 x 1.97 (30.0 x 50.0) | 36.0 | 32.0 | 5.7 | 6.1 |
| 22 000.0 | 80D223P025ME2DE3 | 1.38 x 1.97 (35.0 x 50.0) | 19.0 | 17.0 | 9.1 | 10.0 |



| ELECTRICAL DATA AND ORDERING INFORMATION | | | | | | |
|---|------------------|-----------------------------|---------------|------------------|---------------------------|------------------|
| CAPACITANCE (μF) | PART NUMBER | NOMINAL CASE SIZE D x L | MAX. ESR (mΩ) | | MAX. RIPPLE AT +85 °C (A) | |
| | | | 120 Hz | 10 kHz TO 40 kHz | 120 Hz | 10 kHz TO 40 kHz |
| 35 WV_{DC} AT +85 °C, SURGE = 44 V | | | | | | |
| 6800.0 | 80D682P035KC2DE3 | 1.18 x 1.38 (30.0 x 35.0) | 60.0 | 51.0 | 3.8 | 4.2 |
| 10 000.0 | 80D103P035MC2DE3 | 1.38 x 1.38 (35.0 x 35.0) | 33.0 | 27.0 | 6.2 | 7.2 |
| 12 000.0 | 80D123P035KE2DE3 | 1.18 x 1.97 (30.0 x 50.0) | 33.0 | 27.0 | 6.2 | 7.2 |
| 15 000.0 | 80D153P035ME2DE3 | 1.38 x 1.97 (35.0 x 50.0) | 20.0 | 17.0 | 8.8 | 10.0 |
| 50 WV_{DC} AT +85 °C, SURGE = 63 V | | | | | | |
| 3300.0 | 80D332P050JD2DE3 | 0.984 x 1.57 (25.0 x 40.0) | 57.0 | 42.0 | 3.9 | 4.9 |
| 3300.0 | 80D332P050KB2DE3 | 1.18 x 1.18 (30.0 x 30.0) | 79.0 | 63.0 | 3.1 | 3.6 |
| 4700.0 | 80D472P050KD2DE3 | 1.18 x 1.57 (30.0 x 40.0) | 51.0 | 41.0 | 4.3 | 4.9 |
| 6800.0 | 80D682P050KE2DE3 | 1.18 x 1.97 (30.0 x 50.0) | 40.0 | 32.0 | 5.3 | 6.1 |
| 63 WV_{DC} AT +85 °C, SURGE = 79 V | | | | | | |
| 1500.0 | 80D152P063JB2DE3 | 0.984 x 1.18 (25.0 x 30.0) | 82.0 | 55.0 | 2.8 | 3.8 |
| 2200.0 | 80D222P063KB2DE3 | 1.18 x 1.18 (30.0 x 30.0) | 72.0 | 54.0 | 3.2 | 3.9 |
| 3300.0 | 80D332P063MB2DE3 | 1.38 x 1.18 (35.0 x 30.0) | 40.0 | 28.0 | 5.0 | 6.6 |
| 4700.0 | 80D472P063KE2DE3 | 1.18 x 1.97 (30.0 x 50.0) | 36.0 | 28.0 | 5.4 | 6.4 |
| 6800.0 | 80D682P063ME2DE3 | 1.38 x 1.97 (35.0 x 50.0) | 21.0 | 15.0 | 8.3 | 10.0 |
| 100 WV_{DC} AT +85 °C, SURGE = 125 V | | | | | | |
| 680.0 | 80D681P100JB2DE3 | 0.984 x 1.18 (25.0 x 30.0) | 139.0 | 85.0 | 2.2 | 3.5 |
| 1000.0 | 80D102P100KB2DE3 | 1.18 x 1.18 (30.0 x 30.0) | 111.0 | 74.0 | 2.7 | 3.7 |
| 1500.0 | 80D152P100JE2DE3 | 0.984 x 1.97 (25.0 x 50.0) | 68.0 | 42.0 | 3.9 | 5.9 |
| 2200.0 | 80D222P100KE2DE3 | 1.18 x 1.97 (30.0 x 50.0) | 55.0 | 37.0 | 4.7 | 6.2 |
| 3300.0 | 80D332P100ME2DE3 | 1.38 x 1.97 (35.0 x 50.0) | 50.0 | 37.0 | 5.2 | 6.2 |
| 200 WV_{DC} AT +85 °C, SURGE = 250 V | | | | | | |
| 150.0 | 80D151P200JA2DE3 | 0.984 x 0.984 (25.0 x 25.0) | 660.0 | 375.0 | 1.3 | 3.2 |
| 220.0 | 80D221P200KA2DE3 | 1.18 x 0.984 (30.0 x 25.0) | 460.0 | 272.0 | 1.7 | 3.6 |
| 330.0 | 80D331P200KC2DE3 | 1.18 x 1.38 (30.0 x 35.0) | 278.0 | 165.0 | 2.4 | 4.9 |
| 470.0 | 80D471P200KD2DE3 | 1.18 x 1.57 (30.0 x 40.0) | 220.0 | 131.0 | 2.8 | 5.7 |
| 680.0 | 80D681P200KD2DE3 | 1.18 x 1.57 (30.0 x 40.0) | 248.0 | 127.0 | 2.1 | 4.7 |
| 820.0 | 80D821P200ME2DE3 | 1.38 x 1.97 (35.0 x 50.0) | 130.0 | 82.0 | 4.3 | 7.4 |
| 1000.0 | 80D102P200ME2DE3 | 1.38 x 1.97 (35.0 x 50.0) | 144.0 | 81.0 | 3.4 | 6.6 |
| 1200.0 | 80D122P200ME2DE3 | 1.38 x 1.97 (35.0 x 50.0) | 141.0 | 75.0 | 3.4 | 6.6 |
| 250 WV_{DC} AT +85 °C, SURGE = 300 V | | | | | | |
| 100.0 | 80D101P250JA2DE3 | 0.984 x 0.984 (25.0 x 25.0) | 720.0 | 377.0 | 1.1 | 3.2 |
| 150.0 | 80D151P250JB2DE3 | 0.984 x 1.18 (25.0 x 30.0) | 541.0 | 284.0 | 1.4 | 3.8 |
| 220.0 | 80D221P250JD2DE3 | 0.984 x 1.57 (25.0 x 40.0) | 343.0 | 182.0 | 2.0 | 5.2 |
| 330.0 | 80D331P250JE2DE3 | 0.984 x 1.97 (25.0 x 50.0) | 263.0 | 140.0 | 2.5 | 6.3 |
| 470.0 | 80D471P250KE2DE3 | 1.18 x 1.97 (30.0 x 50.0) | 185.0 | 101.0 | 3.2 | 7.0 |
| 680.0 | 80D681P250ME2DE3 | 1.38 x 1.97 (35.0 x 50.0) | 191.0 | 81.0 | 4.0 | 7.4 |



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