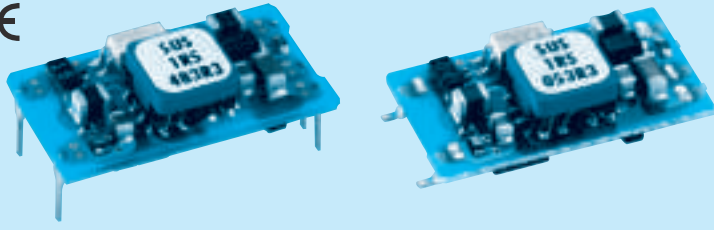


# SUS1R5

SU S 1R5 12 05 B P

① ② ③ ④ ⑤ ⑥ ⑦



- ① Series name
- ② Single output
- ③ Output wattage
- ④ Input voltage
- ⑤ Output voltage
- ⑥ Mounting type  
B :SMD  
C :DIP
- ⑦ Packing form  
Blank:Plastic cover  
P :Tray (SMD type)

| MODEL                 | SUS1R5053R3   | SUS1R50505 | SUS1R50512 | SUS1R50515 | SUS1R5123R3 | SUS1R51205 | SUS1R51212 | SUS1R51215 |
|-----------------------|---------------|------------|------------|------------|-------------|------------|------------|------------|
| MAX OUTPUT WATTAGE[W] | 1.32          | 1.5        | 1.56       | 1.5        | 1.32        | 1.5        | 1.56       | 1.5        |
| DC OUTPUT             | VOLTAGE[V] *1 | 3.3        | 5          | 12         | 15          | 3.3        | 5          | 12         |
|                       | CURRENT[A]    | 0.4        | 0.3        | 0.13       | 0.1         | 0.4        | 0.3        | 0.1        |

## SPECIFICATIONS

|                               | MODEL                           | SUS1R5053R3                                          | SUS1R50505  | SUS1R50512    | SUS1R50515    | SUS1R5123R3 | SUS1R51205  | SUS1R51212    | SUS1R51215    |
|-------------------------------|---------------------------------|------------------------------------------------------|-------------|---------------|---------------|-------------|-------------|---------------|---------------|
| INPUT                         | VOLTAGE[V]                      | DC4.5 - 9                                            |             |               |               | DC9 - 18    |             |               |               |
|                               | CURRENT[A] *2                   | 0.377typ                                             | 0.405typ    | 0.422typ      | 0.405typ      | 0.153typ    | 0.164typ    | 0.171typ      | 0.164typ      |
|                               | EFFICIENCY[%] *2                | 70typ                                                | 74typ       | 74typ         | 74typ         | 72typ       | 76typ       | 76typ         | 76typ         |
|                               |                                 |                                                      |             |               |               |             |             |               |               |
| OUTPUT                        | VOLTAGE[V]                      | 3.3                                                  | 5           | 12            | 15            | 3.3         | 5           | 12            | 15            |
|                               | CURRENT[A]                      | 0.4                                                  | 0.3         | 0.13          | 0.1           | 0.4         | 0.3         | 0.13          | 0.1           |
|                               | LINE REGULATION[mV]             | 20max                                                | 20max       | 48max         | 60max         | 20max       | 20max       | 48max         | 60max         |
|                               | LOAD REGULATION[mV]             | 40max                                                | 40max       | 100max        | 120max        | 40max       | 40max       | 100max        | 120max        |
|                               | RIPPLE[mVp-p]                   | -20 to +55°C *3                                      | 80max       | 80max         | 120max        | 120max      | 80max       | 80max         | 120max        |
|                               |                                 | -40 to -20°C *3                                      | 120max      | 120max        | 150max        | 150max      | 120max      | 120max        | 150max        |
|                               | RIPPLE NOISE[mVp-p]             | -20 to +55°C *3                                      | 120max      | 120max        | 150max        | 150max      | 120max      | 120max        | 150max        |
|                               |                                 | -40 to -20°C *3                                      | 200max      | 200max        | 200max        | 200max      | 200max      | 200max        | 200max        |
|                               | TEMPERATURE REGULATION[mV]      | -20 to +55°C                                         | 50max       | 50max         | 150max        | 180max      | 50max       | 50max         | 150max        |
|                               |                                 | -40 to +55°C                                         | 80max       | 80max         | 240max        | 290max      | 80max       | 80max         | 240max        |
|                               | DRIFT[mV] *4                    | 20max                                                | 20max       | 48max         | 60max         | 20max       | 20max       | 48max         | 60max         |
|                               | START-UP TIME[ms]               | 20max (Minimum input, Io=100%)                       |             |               |               |             |             |               |               |
|                               | OUTPUT VOLTAGE ADJUSTMENT RANGE | Fixed (TRM pin open) ±5% adjustable by external VR   |             |               |               |             |             |               |               |
|                               | OUTPUT VOLTAGE SETTING[V] (±3%) | 3.21 - 3.42                                          | 4.90 - 5.21 | 11.64 - 12.36 | 14.55 - 15.45 | 3.21 - 3.42 | 4.90 - 5.21 | 11.64 - 12.36 | 14.55 - 15.45 |
| PROTECTION CIRCUIT AND OTHERS | OVERCURRENT PROTECTION          | Works over 105% of rating and recovers automatically |             |               |               |             |             |               |               |

| MODEL                 | SUS1R5243R3   | SUS1R52405 | SUS1R52412 | SUS1R52415 | SUS1R5483R3 | SUS1R54805 | SUS1R54812 | SUS1R54815 |
|-----------------------|---------------|------------|------------|------------|-------------|------------|------------|------------|
| MAX OUTPUT WATTAGE[W] | 1.32          | 1.5        | 1.56       | 1.5        | 1.32        | 1.5        | 1.56       | 1.5        |
| DC OUTPUT             | VOLTAGE[V] *1 | 3.3        | 5          | 12         | 15          | 3.3        | 5          | 12         |
|                       | CURRENT[A]    | 0.4        | 0.3        | 0.13       | 0.1         | 0.4        | 0.3        | 0.1        |

## SPECIFICATIONS

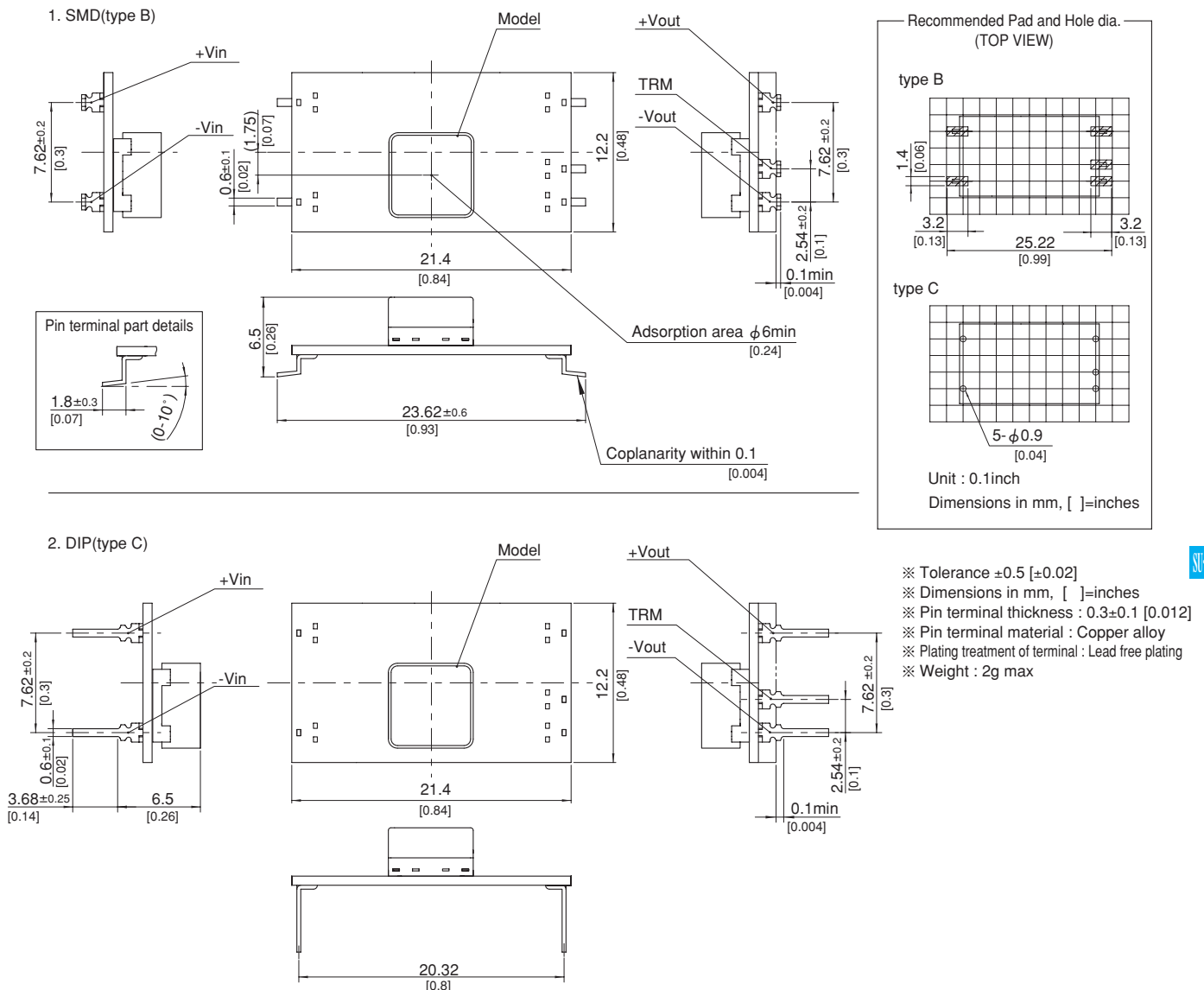
|                               | MODEL                           | SUS1R5243R3                                          | SUS1R52405  | SUS1R52412    | SUS1R52415    | SUS1R5483R3 | SUS1R54805  | SUS1R54812    | SUS1R54815    |
|-------------------------------|---------------------------------|------------------------------------------------------|-------------|---------------|---------------|-------------|-------------|---------------|---------------|
| INPUT                         | VOLTAGE[V]                      | DC18 - 36                                            |             |               |               | DC36 - 76   |             |               |               |
|                               | CURRENT[A] *2                   | 0.076typ                                             | 0.082typ    | 0.084typ      | 0.081typ      | 0.038typ    | 0.041typ    | 0.042typ      | 0.041typ      |
|                               | EFFICIENCY[%] *2                | 72typ                                                | 76typ       | 77typ         | 77typ         | 72typ       | 76typ       | 77typ         | 77typ         |
|                               |                                 |                                                      |             |               |               |             |             |               |               |
| OUTPUT                        | VOLTAGE[V]                      | 3.3                                                  | 5           | 12            | 15            | 3.3         | 5           | 12            | 15            |
|                               | CURRENT[A]                      | 0.4                                                  | 0.3         | 0.13          | 0.1           | 0.4         | 0.3         | 0.13          | 0.1           |
|                               | LINE REGULATION[mV]             | 20max                                                | 20max       | 48max         | 60max         | 20max       | 20max       | 48max         | 60max         |
|                               | LOAD REGULATION[mV]             | 40max                                                | 40max       | 100max        | 120max        | 40max       | 40max       | 100max        | 120max        |
|                               | RIPPLE[mVp-p]                   | -20 to +55°C *3                                      | 80max       | 80max         | 120max        | 120max      | 80max       | 80max         | 120max        |
|                               |                                 | -40 to -20°C *3                                      | 120max      | 120max        | 150max        | 150max      | 120max      | 120max        | 150max        |
|                               | RIPPLE NOISE[mVp-p]             | -20 to +55°C *3                                      | 120max      | 120max        | 150max        | 150max      | 120max      | 120max        | 150max        |
|                               |                                 | -40 to -20°C *3                                      | 200max      | 200max        | 200max        | 200max      | 200max      | 200max        | 200max        |
|                               | TEMPERATURE REGULATION[mV]      | -20 to +55°C                                         | 50max       | 50max         | 150max        | 180max      | 50max       | 50max         | 150max        |
|                               |                                 | -40 to +55°C                                         | 80max       | 80max         | 240max        | 290max      | 80max       | 80max         | 240max        |
|                               | DRIFT[mV] *4                    | 20max                                                | 20max       | 48max         | 60max         | 20max       | 20max       | 48max         | 60max         |
|                               | START-UP TIME[ms]               | 20max (Minimum input, Io=100%)                       |             |               |               |             |             |               |               |
|                               | OUTPUT VOLTAGE ADJUSTMENT RANGE | Fixed (TRM pin open) ±5% adjustable by external VR   |             |               |               |             |             |               |               |
|                               | OUTPUT VOLTAGE SETTING[V] (±3%) | 3.21 - 3.42                                          | 4.90 - 5.21 | 11.64 - 12.36 | 14.55 - 15.45 | 3.21 - 3.42 | 4.90 - 5.21 | 11.64 - 12.36 | 14.55 - 15.45 |
| PROTECTION CIRCUIT AND OTHERS | OVERCURRENT PROTECTION          | Works over 105% of rating and recovers automatically |             |               |               |             |             |               |               |

## GENERAL SPECIFICATIONS

|                    |                                             |                                                                                              |
|--------------------|---------------------------------------------|----------------------------------------------------------------------------------------------|
| <b>ISOLATION</b>   | <b>INPUT-OUTPUT</b>                         | AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃)                              |
| <b>ENVIRONMENT</b> | <b>OPERATING TEMP., HUMID. AND ALTITUDE</b> | -40 to +85℃, 20 - 95%RH (Non condensing) (Required Derating), 3,000m (10,000feet) max        |
|                    | <b>STORAGE TEMP., HUMID. AND ALTITUDE</b>   | -40 to +100℃, 20 - 95%RH (Non condensing), 9,000m (30,000feet) max                           |
|                    | <b>VIBRATION</b>                            | 10 - 55Hz, 98.0m/s <sup>2</sup> (10G), 3minutes period, 60minutes each along X, Y and Z axis |
|                    | <b>IMPACT</b>                               | 490.3m/s <sup>2</sup> (50G), 11ms, once each along X, Y and Z axis                           |
| <b>SAFETY</b>      | <b>AGENCY APPROVALS</b>                     | UL60950-1, C-UL, EN60950-1                                                                   |
| <b>OTHERS</b>      | <b>CASE SIZE/WEIGHT</b>                     | 21.4 × 6.5 × 12.2mm [0.84 × 0.26 × 0.48 inches] (W × H × D) / 2g max                         |
|                    | <b>COOLING METHOD</b>                       | Convection/Forced air                                                                        |

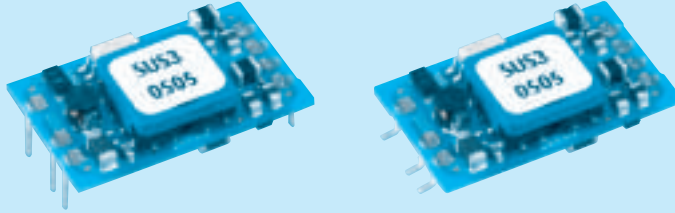
- \*1 SUW1R5xx12/SUW1R5xx15 is available as single output, +24V/+30V.
- \*2 Rated input 5V, 12V, 24V or 48V DC I<sub>o</sub>=100%
- \*3 Ripple and Ripple Noise is measured by using measuring board with capacitor with in 25mm from output pin terminals.
- \*4 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25℃.
- \* Parallel operation with other model is not possible.

### External view



SUS3

SU S 3 12 05 B P - □



- ① Series name
- ② Single output
- ③ Output wattage
- ④ Input voltage
- ⑤ Output voltage
- ⑥ Mounting type
- B : SMD
- C : DIP
- ⑦ Packing form
- Blank: Plastic cover
- P : Tray (SMD type)
- ⑧ Optional
- G : Capacitor between Input and Output is removed.

| MODEL                 |              | SUS3053R3 | SUS30505 | SUS30512 | SUS30515 | SUS3123R3 | SUS31205 | SUS31212 | SUS31215 |
|-----------------------|--------------|-----------|----------|----------|----------|-----------|----------|----------|----------|
| MAX OUTPUT WATTAGE[W] |              | 1.98      | 3        | 3        | 3        | 1.98      | 3        | 3        | 3        |
| DC OUTPUT             | VOLTAGE[V]※1 | 3.3       | 5        | 12       | 15       | 3.3       | 5        | 12       | 15       |
|                       | CURRENT[A]   | 0.6       | 0.6      | 0.25     | 0.2      | 0.6       | 0.6      | 0.25     | 0.2      |

## SPECIFICATIONS

|                               | MODEL                           | SUS3053R3                                            | SUS30505    | SUS30512      | SUS30515      | SUS3123R3   | SUS31205    | SUS31212      | SUS31215      |
|-------------------------------|---------------------------------|------------------------------------------------------|-------------|---------------|---------------|-------------|-------------|---------------|---------------|
| INPUT                         | VOLTAGE[V]                      | DC4.5 - 9                                            |             |               |               | DC9 - 18    |             |               |               |
|                               | CURRENT[A] *2                   | 0.536typ                                             | 0.780typ    | 0.760typ      | 0.760typ      | 0.218typ    | 0.317typ    | 0.309typ      | 0.313typ      |
|                               | EFFICIENCY[%] *2                | 74typ                                                | 77typ       | 79typ         | 79typ         | 76typ       | 79typ       | 81typ         | 80typ         |
| OUTPUT                        | VOLTAGE[V]                      | 3.3                                                  | 5           | 12            | 15            | 3.3         | 5           | 12            | 15            |
|                               | CURRENT[A]                      | 0.6                                                  | 0.6         | 0.25          | 0.2           | 0.6         | 0.6         | 0.25          | 0.2           |
|                               | LINE REGULATION[mV]             | 20max                                                | 20max       | 48max         | 60max         | 20max       | 20max       | 48max         | 60max         |
|                               | LOAD REGULATION[mV]             | 40max                                                | 40max       | 100max        | 120max        | 40max       | 40max       | 100max        | 120max        |
|                               | RIPPLE[mVp-p]                   | -20 to +55°C *3                                      | 80max       | 80max         | 120max        | 120max      | 80max       | 80max         | 120max        |
|                               |                                 | -40 to -20°C *3                                      | 120max      | 120max        | 150max        | 150max      | 120max      | 120max        | 150max        |
|                               | RIPPLE NOISE[mVp-p]             | -20 to +55°C *3                                      | 120max      | 120max        | 150max        | 150max      | 120max      | 120max        | 150max        |
|                               |                                 | -40 to -20°C *3                                      | 200max      | 200max        | 200max        | 200max      | 200max      | 200max        | 200max        |
|                               | TEMPERATURE REGULATION[mV]      | -20 to +55°C                                         | 50max       | 50max         | 150max        | 180max      | 50max       | 50max         | 150max        |
|                               |                                 | -40 to +55°C                                         | 80max       | 80max         | 240max        | 290max      | 80max       | 80max         | 240max        |
| PROTECTION CIRCUIT AND OTHERS | DRIFT[mV] *4                    | 20max                                                | 20max       | 48max         | 60max         | 20max       | 20max       | 48max         | 60max         |
|                               | START-UP TIME[ms]               | 20max (Minimum input, Io=100%)                       |             |               |               |             |             |               |               |
|                               | OUTPUT VOLTAGE ADJUSTMENT RANGE | Fixed (TRM pin open) ±5% adjustable by external VR   |             |               |               |             |             |               |               |
|                               | OUTPUT VOLTAGE SETTING[V] (±3%) | 3.21 - 3.42                                          | 4.90 - 5.21 | 11.64 - 12.36 | 14.55 - 15.45 | 3.21 - 3.42 | 4.90 - 5.21 | 11.64 - 12.36 | 14.55 - 15.45 |
|                               | OVERCURRENT PROTECTION          | Works over 105% of rating and recovers automatically |             |               |               |             |             |               |               |
|                               | REMOTE ON/OFF                   | Provided (Negative logic L : ON, H : OFF)            |             |               |               |             |             |               |               |

| MODEL                 |              | SUS3243R3 | SUS32405 | SUS32412 | SUS32415 | SUS3483R3 | SUS34805 | SUS34812 | SUS34815 |
|-----------------------|--------------|-----------|----------|----------|----------|-----------|----------|----------|----------|
| MAX OUTPUT WATTAGE[W] |              | 1.98      | 3        | 3        | 3        | 1.98      | 3        | 3        | 3        |
| DC OUTPUT             | VOLTAGE[V]※1 | 3.3       | 5        | 12       | 15       | 3.3       | 5        | 12       | 15       |
|                       | CURRENT[A]   | 0.6       | 0.6      | 0.25     | 0.2      | 0.6       | 0.6      | 0.25     | 0.2      |

## SPECIFICATIONS

|                               | MODEL                           | SUS3243R3                                            | SUS32405    | SUS32412      | SUS32415      | SUS3483R3   | SUS34805    | SUS34812      | SUS34815      |
|-------------------------------|---------------------------------|------------------------------------------------------|-------------|---------------|---------------|-------------|-------------|---------------|---------------|
| INPUT                         | VOLTAGE[V]                      | DC18 - 36                                            |             |               |               | DC36 - 76   |             |               |               |
|                               | CURRENT[A] *2                   | 0.110typ                                             | 0.159typ    | 0.155typ      | 0.157typ      | 0.056typ    | 0.080typ    | 0.078typ      | 0.078typ      |
|                               | EFFICIENCY[%] *2                | 75typ                                                | 79typ       | 81typ         | 80typ         | 74typ       | 79typ       | 81typ         | 81typ         |
| OUTPUT                        | VOLTAGE[V]                      | 3.3                                                  | 5           | 12            | 15            | 3.3         | 5           | 12            | 15            |
|                               | CURRENT[A]                      | 0.6                                                  | 0.6         | 0.25          | 0.2           | 0.6         | 0.6         | 0.25          | 0.2           |
|                               | LINE REGULATION[mV]             | 20max                                                | 20max       | 48max         | 60max         | 20max       | 20max       | 48max         | 60max         |
|                               | LOAD REGULATION[mV]             | 40max                                                | 40max       | 100max        | 120max        | 40max       | 40max       | 100max        | 120max        |
|                               | RIPPLE[mVp-p]                   | -20 to +55°C *3                                      | 80max       | 80max         | 120max        | 120max      | 80max       | 80max         | 120max        |
|                               |                                 | -40 to -20°C *3                                      | 120max      | 120max        | 150max        | 150max      | 120max      | 120max        | 150max        |
|                               | RIPPLE NOISE[mVp-p]             | -20 to +55°C *3                                      | 120max      | 120max        | 150max        | 150max      | 120max      | 120max        | 150max        |
|                               |                                 | -40 to -20°C *3                                      | 200max      | 200max        | 200max        | 200max      | 200max      | 200max        | 200max        |
|                               | TEMPERATURE REGULATION[mV]      | -20 to +55°C                                         | 50max       | 50max         | 150max        | 180max      | 50max       | 50max         | 150max        |
|                               |                                 | -40 to +55°C                                         | 80max       | 80max         | 240max        | 290max      | 80max       | 80max         | 240max        |
| PROTECTION CIRCUIT AND OTHERS | DRIFT[mV] *4                    | 20max                                                | 20max       | 48max         | 60max         | 20max       | 20max       | 48max         | 60max         |
|                               | START-UP TIME[ms]               | 20max (Minimum input, Io=100%)                       |             |               |               |             |             |               |               |
|                               | OUTPUT VOLTAGE ADJUSTMENT RANGE | Fixed (TRM pin open) ±5% adjustable by external VR   |             |               |               |             |             |               |               |
|                               | OUTPUT VOLTAGE SETTING[V] (±3%) | 3.21 - 3.42                                          | 4.90 - 5.21 | 11.64 - 12.36 | 14.55 - 15.45 | 3.21 - 3.42 | 4.90 - 5.21 | 11.64 - 12.36 | 14.55 - 15.45 |
|                               | OVERCURRENT PROTECTION          | Works over 105% of rating and recovers automatically |             |               |               |             |             |               |               |
|                               | REMOTE ON/OFF                   | Provided (Negative logic L : ON, H : OFF)            |             |               |               |             |             |               |               |

## GENERAL SPECIFICATIONS

|                    |                                             |                                                                                                              |
|--------------------|---------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| <b>ISOLATION</b>   | <b>INPUT-OUTPUT</b>                         | AC500V 1minute, Cutoff current = 10mA, DC500V 50M $\Omega$ min (20 $\pm$ 15 $^{\circ}$ C)                    |
| <b>ENVIRONMENT</b> | <b>OPERATING TEMP., HUMID. AND ALTITUDE</b> | -40 to +85 $^{\circ}$ C, 20 - 95%RH (Non condensing) (Required Derating), 3,000m (10,000feet) max            |
|                    | <b>STORAGE TEMP., HUMID. AND ALTITUDE</b>   | -40 to +100 $^{\circ}$ C, 20 - 95%RH (Non condensing), 9,000m (30,000feet) max                               |
|                    | <b>VIBRATION</b>                            | 10 - 55Hz, 98.0m/s <sup>2</sup> (10G), 3minutes period, 60minutes each along X, Y and Z axis                 |
|                    | <b>IMPACT</b>                               | 490.3m/s <sup>2</sup> (50G), 11ms, once each along X, Y and Z axis                                           |
| <b>SAFETY</b>      | <b>AGENCY APPROVALS</b>                     | UL60950-1, C-UL, EN60950-1                                                                                   |
| <b>OTHERS</b>      | <b>CASE SIZE/WEIGHT</b>                     | 24 $\times$ 6.5 $\times$ 15.1mm [0.94 $\times$ 0.26 $\times$ 0.59 inches] (W $\times$ H $\times$ D) / 3g max |
|                    | <b>COOLING METHOD</b>                       | Convection/Forced air                                                                                        |

\*1 SUW3xx12/SUW3xx15 is available as single output, +24V/+30V.

\*2 Rated input 5V, 12V, 24V or 48V DC Io=100%

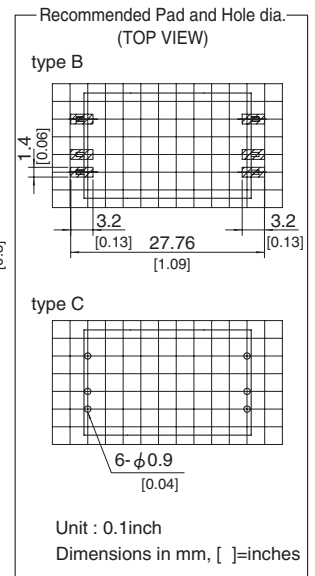
\*3 Ripple and Ripple Noise is measured by using measuring board with capacitor with in 25mm from output pin terminals.

\*4 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25 $^{\circ}$ C.

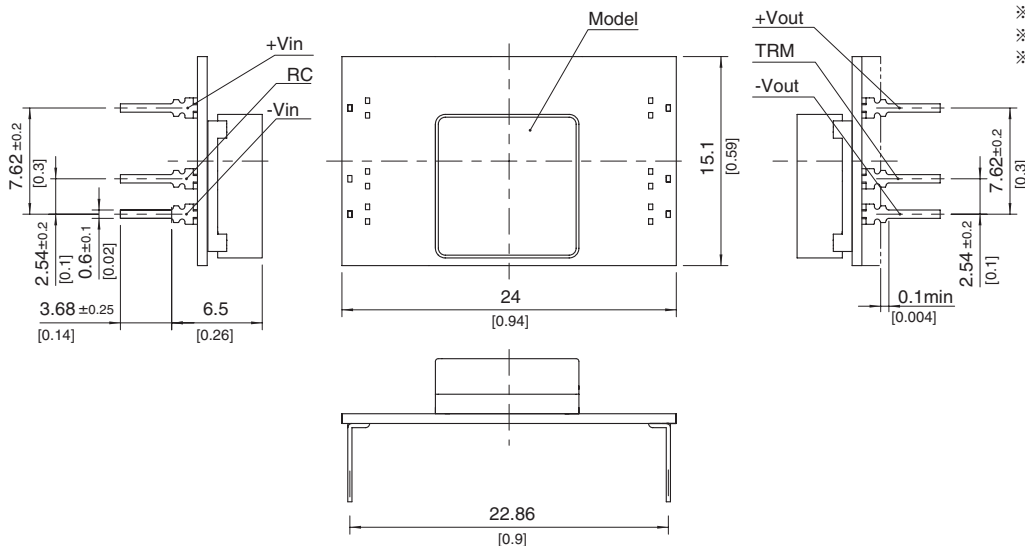
\* Parallel operation with other model is not possible.

## External view

1. SMD(type B)



2. DIP(type C)



- ※ Tolerance  $\pm 0.5$  [ $\pm 0.02$ ]
- ※ Dimensions in mm, [ ]=inches
- ※ Pin terminal thickness :  $0.3 \pm 0.1$  [0.012]
- ※ Pin terminal material : Copper alloy
- ※ Plating treatment of terminal : Lead free plating
- ※ Weight : 3g max

SU-SUC/SUT

SUS6

SU S 6 12 05 B P - ☐

① ② ③ ④ ⑤ ⑥ ⑦ ⑧



- ① Series name  
 ② Single output  
 ③ Output wattage  
 ④ Input voltage  
 ⑤ Output voltage  
 ⑥ Mounting type  
 B : SMD  
 C : DIP  
 ⑦ Packing form  
 Blank: Plastic cover  
 P : Tray (SMD type)  
 ⑧ Optional  
 G : Capacitor between Input and Output is removed.

| MODEL                 | SUS6053R3     | SUS60505 | SUS60512 | SUS60515 | SUS6123R3 | SUS61205 | SUS61212 | SUS61215 |
|-----------------------|---------------|----------|----------|----------|-----------|----------|----------|----------|
| MAX OUTPUT WATTAGE[W] | 3.96          | 5        | 6        | 6        | 4.46      | 6        | 6        | 6        |
| DC OUTPUT             | VOLTAGE[V] *1 | 3.3      | 5        | 12       | 15        | 3.3      | 5        | 12       |
|                       | CURRENT[A]    | 1.2      | 1        | 0.5      | 0.4       | 1.35     | 1.2      | 0.5      |

## SPECIFICATIONS

|                               | MODEL                           | SUS6053R3                                            | SUS60505    | SUS60512      | SUS60515      | SUS6123R3   | SUS61205    | SUS61212      | SUS61215      |
|-------------------------------|---------------------------------|------------------------------------------------------|-------------|---------------|---------------|-------------|-------------|---------------|---------------|
| INPUT                         | VOLTAGE[V]                      | DC4.5 - 9                                            |             |               |               | DC9 - 18    |             |               |               |
|                               | CURRENT[A] *2                   | 1.100typ                                             | 1.316typ    | 1.500typ      | 1.500typ      | 0.502typ    | 0.617typ    | 0.588typ      | 0.588typ      |
|                               | EFFICIENCY[%] *2                | 72typ                                                | 76typ       | 80typ         | 80typ         | 74typ       | 81typ       | 85typ         | 85typ         |
| OUTPUT                        | VOLTAGE[V]                      | 3.3                                                  | 5           | 12            | 15            | 3.3         | 5           | 12            | 15            |
|                               | CURRENT[A]                      | 1.2                                                  | 1           | 0.5           | 0.4           | 1.35        | 1.2         | 0.5           | 0.4           |
|                               | LINE REGULATION[mV]             | 20max                                                | 20max       | 48max         | 60max         | 20max       | 20max       | 48max         | 60max         |
|                               | LOAD REGULATION[mV]             | 40max                                                | 40max       | 100max        | 120max        | 40max       | 40max       | 100max        | 120max        |
|                               | RIPPLE[mVp-p]                   | -20 to +55°C *3                                      | 80max       | 80max         | 120max        | 120max      | 80max       | 80max         | 120max        |
|                               |                                 | -40 to -20°C *3                                      | 120max      | 120max        | 150max        | 150max      | 120max      | 120max        | 150max        |
|                               | RIPPLE NOISE[mVp-p]             | -20 to +55°C *3                                      | 120max      | 120max        | 150max        | 150max      | 120max      | 120max        | 150max        |
|                               |                                 | -40 to -20°C *3                                      | 200max      | 200max        | 200max        | 200max      | 200max      | 200max        | 200max        |
|                               | TEMPERATURE REGULATION[mV]      | -20 to +55°C                                         | 50max       | 50max         | 150max        | 180max      | 50max       | 50max         | 150max        |
|                               |                                 | -40 to +55°C                                         | 80max       | 80max         | 240max        | 290max      | 80max       | 80max         | 240max        |
| PROTECTION CIRCUIT AND OTHERS | DRIFT[mV] *4                    | 20max                                                | 20max       | 48max         | 60max         | 20max       | 20max       | 48max         | 60max         |
|                               | START-UP TIME[ms]               | 20max (Minimum input, Io=100%)                       |             |               |               |             |             |               |               |
|                               | OUTPUT VOLTAGE ADJUSTMENT RANGE | Fixed (TRM pin open) ±5% adjustable by external VR   |             |               |               |             |             |               |               |
|                               | OUTPUT VOLTAGE SETTING[V] (±3%) | 3.21 - 3.42                                          | 4.90 - 5.21 | 11.64 - 12.36 | 14.55 - 15.45 | 3.21 - 3.42 | 4.90 - 5.21 | 11.64 - 12.36 | 14.55 - 15.45 |
| PROTECTION CIRCUIT AND OTHERS | OVERCURRENT PROTECTION          | Works over 105% of rating and recovers automatically |             |               |               |             |             |               |               |
|                               | REMOTE ON/OFF                   | Provided (Negative logic L : ON, H : OFF)            |             |               |               |             |             |               |               |

| MODEL                 | SUS6243R3     | SUS62405 | SUS62412 | SUS62415 | SUS6483R3 | SUS64805 | SUS64812 | SUS64815 |
|-----------------------|---------------|----------|----------|----------|-----------|----------|----------|----------|
| MAX OUTPUT WATTAGE[W] | 4.46          | 6        | 6        | 6        | 4.46      | 6        | 6        | 6        |
| DC OUTPUT             | VOLTAGE[V] *1 | 3.3      | 5        | 12       | 15        | 3.3      | 5        | 12       |
|                       | CURRENT[A]    | 1.35     | 1.2      | 0.5      | 0.4       | 1.35     | 1.2      | 0.5      |

## SPECIFICATIONS

|                               | MODEL                           | SUS6243R3                                            | SUS62405    | SUS62412      | SUS62415      | SUS6483R3   | SUS64805    | SUS64812      | SUS64815      |
|-------------------------------|---------------------------------|------------------------------------------------------|-------------|---------------|---------------|-------------|-------------|---------------|---------------|
| INPUT                         | VOLTAGE[V]                      | DC18 - 36                                            |             |               |               | DC36 - 76   |             |               |               |
|                               | CURRENT[A] *2                   | 0.248typ                                             | 0.309typ    | 0.291typ      | 0.291typ      | 0.121typ    | 0.154typ    | 0.145typ      | 0.145typ      |
|                               | EFFICIENCY[%] *2                | 75typ                                                | 81typ       | 86typ         | 86typ         | 77typ       | 81typ       | 86typ         | 86typ         |
| OUTPUT                        | VOLTAGE[V]                      | 3.3                                                  | 5           | 12            | 15            | 3.3         | 5           | 12            | 15            |
|                               | CURRENT[A]                      | 1.35                                                 | 1.2         | 0.5           | 0.4           | 1.35        | 1.2         | 0.5           | 0.4           |
|                               | LINE REGULATION[mV]             | 20max                                                | 20max       | 48max         | 60max         | 20max       | 20max       | 48max         | 60max         |
|                               | LOAD REGULATION[mV]             | 40max                                                | 40max       | 100max        | 120max        | 40max       | 40max       | 100max        | 120max        |
|                               | RIPPLE[mVp-p]                   | -20 to +55°C *3                                      | 80max       | 80max         | 120max        | 120max      | 80max       | 80max         | 120max        |
|                               |                                 | -40 to -20°C *3                                      | 120max      | 120max        | 150max        | 150max      | 120max      | 120max        | 150max        |
|                               | RIPPLE NOISE[mVp-p]             | -20 to +55°C *3                                      | 120max      | 120max        | 150max        | 150max      | 120max      | 120max        | 150max        |
|                               |                                 | -40 to -20°C *3                                      | 200max      | 200max        | 200max        | 200max      | 200max      | 200max        | 200max        |
|                               | TEMPERATURE REGULATION[mV]      | -20 to +55°C                                         | 50max       | 50max         | 150max        | 180max      | 50max       | 50max         | 150max        |
|                               |                                 | -40 to +55°C                                         | 80max       | 80max         | 240max        | 290max      | 80max       | 80max         | 240max        |
| PROTECTION CIRCUIT AND OTHERS | DRIFT[mV] *4                    | 20max                                                | 20max       | 48max         | 60max         | 20max       | 20max       | 48max         | 60max         |
|                               | START-UP TIME[ms]               | 20max (Minimum input, Io=100%)                       |             |               |               |             |             |               |               |
|                               | OUTPUT VOLTAGE ADJUSTMENT RANGE | Fixed (TRM pin open) ±5% adjustable by external VR   |             |               |               |             |             |               |               |
|                               | OUTPUT VOLTAGE SETTING[V] (±3%) | 3.21 - 3.42                                          | 4.90 - 5.21 | 11.64 - 12.36 | 14.55 - 15.45 | 3.21 - 3.42 | 4.90 - 5.21 | 11.64 - 12.36 | 14.55 - 15.45 |
| PROTECTION CIRCUIT AND OTHERS | OVERCURRENT PROTECTION          | Works over 105% of rating and recovers automatically |             |               |               |             |             |               |               |
|                               | REMOTE ON/OFF                   | Provided (Negative logic L : ON, H : OFF)            |             |               |               |             |             |               |               |

## GENERAL SPECIFICATIONS

|                    |                                           |                                                                                                                |
|--------------------|-------------------------------------------|----------------------------------------------------------------------------------------------------------------|
| <b>ISOLATION</b>   | <b>INPUT-OUTPUT</b>                       | AC500V 1minute, Cutoff current = 10mA, DC500V 50M $\Omega$ min (20 $\pm$ 15 $^{\circ}$ C)                      |
| <b>ENVIRONMENT</b> | <b>OPERATING TEMP.,HUMID.AND ALTITUDE</b> | -40 to +85 $^{\circ}$ C, 20 - 95%RH (Non condensing) (Required Detering), 3,000m (10.000feet) max              |
|                    | <b>STORAGE TEMP.,HUMID.AND ALTITUDE</b>   | -40 to +100 $^{\circ}$ C, 20 - 95%RH (Non condensing), 9,000m (30,000feet) max                                 |
|                    | <b>VIBRATION</b>                          | 10 - 55Hz, 98.0m/s $^2$ (10G), 3minutes period, 60minutes each along X, Y and Z axis                           |
|                    | <b>IMPACT</b>                             | 490.3m/s $^2$ (50G), 11ms, once each along X, Y and Z axis                                                     |
| <b>SAFETY</b>      | <b>AGENCY APPROVALS</b>                   | UL60950-1, C-UL, EN60950-1                                                                                     |
| <b>OTHERS</b>      | <b>CASE SIZE/WEIGHT</b>                   | 31.6 $\times$ 6.5 $\times$ 18.1mm [1.24 $\times$ 0.26 $\times$ 0.71 inches] (W $\times$ H $\times$ D) / 4g max |
|                    | <b>COOLING METHOD</b>                     | Convection/Forced air                                                                                          |

\*1 SUW6xx12/SUW6xx15 is available as single output, +24V/+30V.

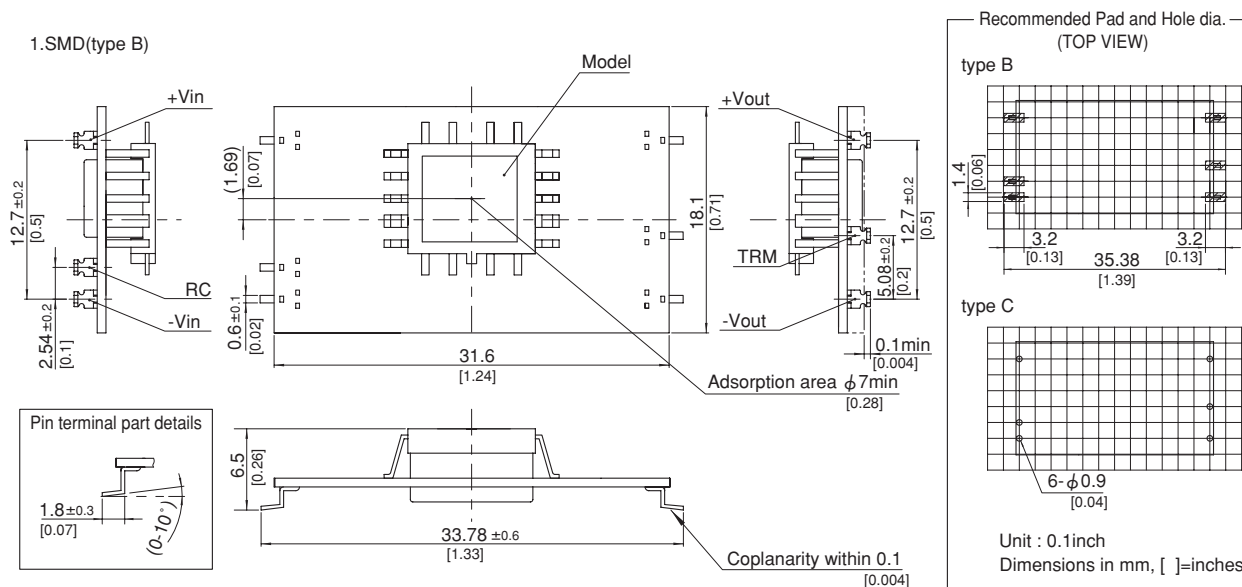
\*2 Rated input 5V, 12V, 24V or 48V DC Io=100%

\*3 Ripple and Ripple Noise is measured by using measuring board with capacitor with in 25mm from output pin terminals.

- \*4 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25°C.

- \* Parallel operation with other model is not possible.

## External view



※ Tolerance  $\pm 0.5$  [ $\pm 0.02$ ]

※ Dimensions in mm, [ ]=inches

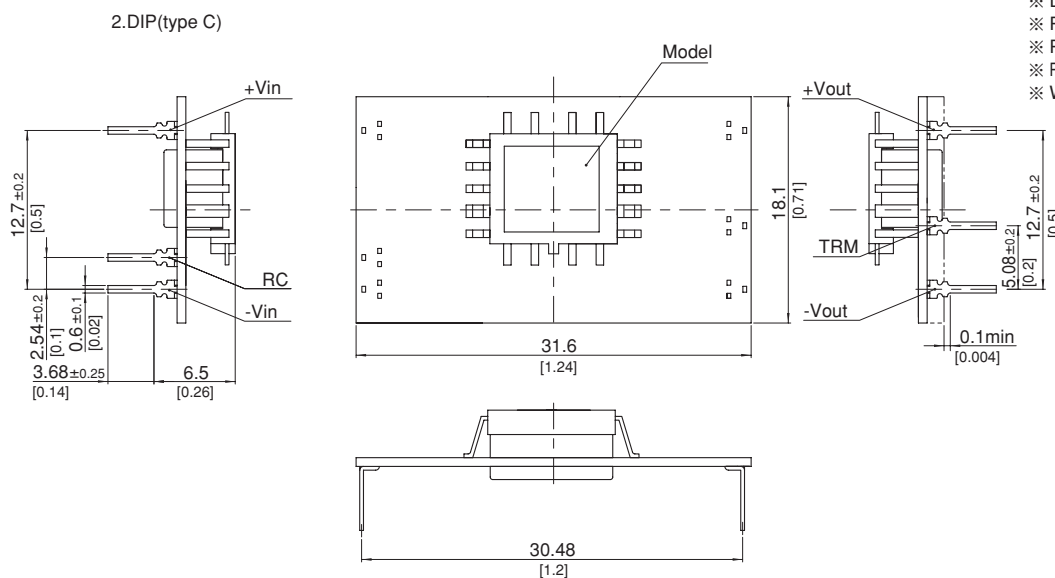
※ Pin terminal thickness :  $0.3 \pm 0.1$  [0.012]

※ Pin terminal material : Copper alloy

※ Plating treatment of terminal : Lead free plating

※ Weight : 4g max

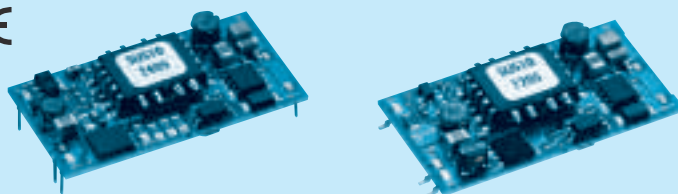
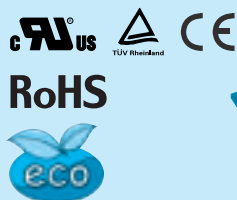
SU·SUC/SUT



SUS10

SU S 10 12 05 B P - □

① ② ③ ④ ⑤ ⑥ ⑦ ⑧



- ① Series name  
 ② Single output  
 ③ Output wattage  
 ④ Input voltage  
 ⑤ Output voltage  
 ⑥ Mounting type  
 B : SMD  
 C : DIP  
 ⑦ Packing form  
 Blank: Plastic cover  
 P : Tray (SMD type)  
 ⑧ Optional  
 G : Capacitor between Input and Output is removed.

| MODEL                 | SUS10053R3    | SUS100505 | SUS100512 | SUS100515 | SUS10123R3 | SUS101205 | SUS101212 | SUS101215 |
|-----------------------|---------------|-----------|-----------|-----------|------------|-----------|-----------|-----------|
| MAX OUTPUT WATTAGE[W] | 8.58          | 10        | 10.8      | 10.5      | 8.58       | 10        | 12        | 12        |
| DC OUTPUT             | VOLTAGE[V] *1 | 3.3       | 5         | 12        | 15         | 3.3       | 5         | 12        |
|                       | CURRENT[A]    | 2.6       | 2         | 0.9       | 0.7        | 2.6       | 2         | 1         |
|                       |               |           |           |           |            |           |           | 0.8       |

## SPECIFICATIONS

|                               | MODEL                           | SUS10053R3                                           | SUS100505   | SUS100512     | SUS100515     | SUS10123R3  | SUS101205   | SUS101212     | SUS101215     |
|-------------------------------|---------------------------------|------------------------------------------------------|-------------|---------------|---------------|-------------|-------------|---------------|---------------|
| INPUT                         | VOLTAGE[V]                      | DC4.5 - 9                                            |             |               |               | DC9 - 18    |             |               |               |
|                               | CURRENT[A] *2                   | 2.12typ                                              | 2.41typ     | 2.54typ       | 2.47typ       | 0.872typ    | 0.980typ    | 1.15typ       | 1.15typ       |
|                               | EFFICIENCY[%] *2                | 81typ                                                | 83typ       | 85typ         | 85typ         | 82typ       | 85typ       | 87typ         | 87typ         |
| OUTPUT                        | VOLTAGE[V]                      | 3.3                                                  | 5           | 12            | 15            | 3.3         | 5           | 12            | 15            |
|                               | CURRENT[A]                      | 2.6                                                  | 2           | 0.9           | 0.7           | 2.6         | 2           | 1             | 0.8           |
|                               | LINE REGULATION[mV]             | 20max                                                | 20max       | 48max         | 60max         | 20max       | 20max       | 48max         | 60max         |
|                               | LOAD REGULATION[mV]             | 40max                                                | 40max       | 100max        | 120max        | 40max       | 40max       | 100max        | 120max        |
|                               | RIPPLE[mVp-p]                   | -20 to +55°C *3                                      | 80max       | 80max         | 120max        | 120max      | 80max       | 80max         | 120max        |
|                               |                                 | -40 to -20°C *3                                      | 120max      | 120max        | 150max        | 150max      | 120max      | 120max        | 150max        |
|                               | RIPPLE NOISE[mVp-p]             | -20 to +55°C *3                                      | 120max      | 120max        | 150max        | 150max      | 120max      | 120max        | 150max        |
|                               |                                 | -40 to -20°C *3                                      | 200max      | 200max        | 200max        | 200max      | 200max      | 200max        | 200max        |
|                               | TEMPERATURE REGULATION[mV]      | -20 to +55°C                                         | 50max       | 50max         | 150max        | 180max      | 50max       | 50max         | 150max        |
|                               |                                 | -40 to +55°C                                         | 80max       | 80max         | 240max        | 290max      | 80max       | 80max         | 240max        |
| PROTECTION CIRCUIT AND OTHERS | DRIFT[mV] *4                    | 20max                                                | 20max       | 48max         | 60max         | 20max       | 20max       | 48max         | 60max         |
|                               | START-UP TIME[ms]               | 20max (Minimum input, Io=100%)                       |             |               |               |             |             |               |               |
|                               | OUTPUT VOLTAGE ADJUSTMENT RANGE | Fixed (TRM pin open) ±5% adjustable by external VR   |             |               |               |             |             |               |               |
|                               | OUTPUT VOLTAGE SETTING[V] (±3%) | 3.21 - 3.42                                          | 4.90 - 5.21 | 11.64 - 12.36 | 14.55 - 15.45 | 3.21 - 3.42 | 4.90 - 5.21 | 11.64 - 12.36 | 14.55 - 15.45 |
| PROTECTION CIRCUIT AND OTHERS | OVERCURRENT PROTECTION          | Works over 105% of rating and recovers automatically |             |               |               |             |             |               |               |
|                               | REMOTE ON/OFF                   | Provided (Negative logic L : ON, H : OFF)            |             |               |               |             |             |               |               |

| MODEL                 | SUS10243R3    | SUS102405 | SUS102412 | SUS102415 | SUS10483R3 | SUS104805 | SUS104812 | SUS104815 |
|-----------------------|---------------|-----------|-----------|-----------|------------|-----------|-----------|-----------|
| MAX OUTPUT WATTAGE[W] | 8.58          | 10        | 12        | 12        | 8.58       | 10        | 12        | 12        |
| DC OUTPUT             | VOLTAGE[V] *1 | 3.3       | 5         | 12        | 15         | 3.3       | 5         | 12        |
|                       | CURRENT[A]    | 2.6       | 2         | 1         | 0.8        | 2.6       | 2         | 1         |
|                       |               |           |           |           |            |           |           | 0.8       |

## SPECIFICATIONS

|                               | MODEL                           | SUS10243R3                                           | SUS102405   | SUS102412     | SUS102415     | SUS10483R3  | SUS104805   | SUS104812     | SUS104815     |
|-------------------------------|---------------------------------|------------------------------------------------------|-------------|---------------|---------------|-------------|-------------|---------------|---------------|
| INPUT                         | VOLTAGE[V]                      | DC18 - 36                                            |             |               |               | DC36 - 76   |             |               |               |
|                               | CURRENT[A] *2                   | 0.436typ                                             | 0.490typ    | 0.575typ      | 0.575typ      | 0.218typ    | 0.245typ    | 0.287typ      | 0.287typ      |
|                               | EFFICIENCY[%] *2                | 82typ                                                | 85typ       | 87typ         | 87typ         | 82typ       | 85typ       | 87typ         | 87typ         |
| OUTPUT                        | VOLTAGE[V]                      | 3.3                                                  | 5           | 12            | 15            | 3.3         | 5           | 12            | 15            |
|                               | CURRENT[A]                      | 2.6                                                  | 2           | 1             | 0.8           | 2.6         | 2           | 1             | 0.8           |
|                               | LINE REGULATION[mV]             | 20max                                                | 20max       | 48max         | 60max         | 20max       | 20max       | 48max         | 60max         |
|                               | LOAD REGULATION[mV]             | 40max                                                | 40max       | 100max        | 120max        | 40max       | 40max       | 100max        | 120max        |
|                               | RIPPLE[mVp-p]                   | -20 to +55°C *3                                      | 80max       | 80max         | 120max        | 120max      | 80max       | 80max         | 120max        |
|                               |                                 | -40 to -20°C *3                                      | 120max      | 120max        | 150max        | 150max      | 120max      | 120max        | 150max        |
|                               | RIPPLE NOISE[mVp-p]             | -20 to +55°C *3                                      | 120max      | 120max        | 150max        | 150max      | 120max      | 120max        | 150max        |
|                               |                                 | -40 to -20°C *3                                      | 200max      | 200max        | 200max        | 200max      | 200max      | 200max        | 200max        |
|                               | TEMPERATURE REGULATION[mV]      | -20 to +55°C                                         | 50max       | 50max         | 150max        | 180max      | 50max       | 50max         | 150max        |
|                               |                                 | -40 to +55°C                                         | 80max       | 80max         | 240max        | 290max      | 80max       | 80max         | 240max        |
| PROTECTION CIRCUIT AND OTHERS | DRIFT[mV] *4                    | 20max                                                | 20max       | 48max         | 60max         | 20max       | 20max       | 48max         | 60max         |
|                               | START-UP TIME[ms]               | 20max (Minimum input, Io=100%)                       |             |               |               |             |             |               |               |
|                               | OUTPUT VOLTAGE ADJUSTMENT RANGE | Fixed (TRM pin open) ±5% adjustable by external VR   |             |               |               |             |             |               |               |
|                               | OUTPUT VOLTAGE SETTING[V] (±3%) | 3.21 - 3.42                                          | 4.90 - 5.21 | 11.64 - 12.36 | 14.55 - 15.45 | 3.21 - 3.42 | 4.90 - 5.21 | 11.64 - 12.36 | 14.55 - 15.45 |
| PROTECTION CIRCUIT AND OTHERS | OVERCURRENT PROTECTION          | Works over 105% of rating and recovers automatically |             |               |               |             |             |               |               |
|                               | REMOTE ON/OFF                   | Provided (Negative logic L : ON, H : OFF)            |             |               |               |             |             |               |               |

## GENERAL SPECIFICATIONS

|                    |                                             |                                                                                                                |
|--------------------|---------------------------------------------|----------------------------------------------------------------------------------------------------------------|
| <b>ISOLATION</b>   | <b>INPUT-OUTPUT</b>                         | AC500V 1minute, Cutoff current = 10mA, DC500V 50M $\Omega$ min (20 $\pm$ 15 $^{\circ}$ C)                      |
| <b>ENVIRONMENT</b> | <b>OPERATING TEMP., HUMID. AND ALTITUDE</b> | -40 to +85 $^{\circ}$ C, 20 - 95%RH (Non condensing) (Required Derating), 3,000m (10,000feet) max              |
|                    | <b>STORAGE TEMP., HUMID. AND ALTITUDE</b>   | -40 to +100 $^{\circ}$ C, 20 - 95%RH (Non condensing), 9,000m (30,000feet) max                                 |
|                    | <b>VIBRATION</b>                            | 10 - 55Hz, 98.0m/s <sup>2</sup> (10G), 3minutes period, 60minutes each along X, Y and Z axis                   |
|                    | <b>IMPACT</b>                               | 490.3m/s <sup>2</sup> (50G), 11ms, once each along X, Y and Z axis                                             |
| <b>SAFETY</b>      | <b>AGENCY APPROVALS</b>                     | UL60950-1, C-UL, EN60950-1                                                                                     |
| <b>OTHERS</b>      | <b>CASE SIZE/WEIGHT</b>                     | 39.2 $\times$ 6.5 $\times$ 21.0mm [1.54 $\times$ 0.26 $\times$ 0.83 inches] (W $\times$ H $\times$ D) / 6g max |
|                    | <b>COOLING METHOD</b>                       | Convection/Forced air                                                                                          |

\*1 SUW10xx12/SUW10xx15 is available as single output, +24V/+30V.

\*2 Rated input 5V, 12V, 24V or 48V DC Io=100%

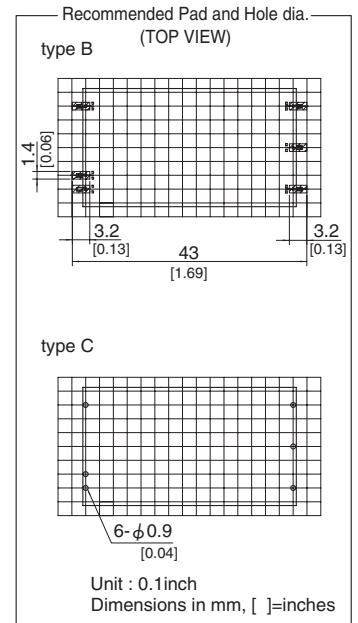
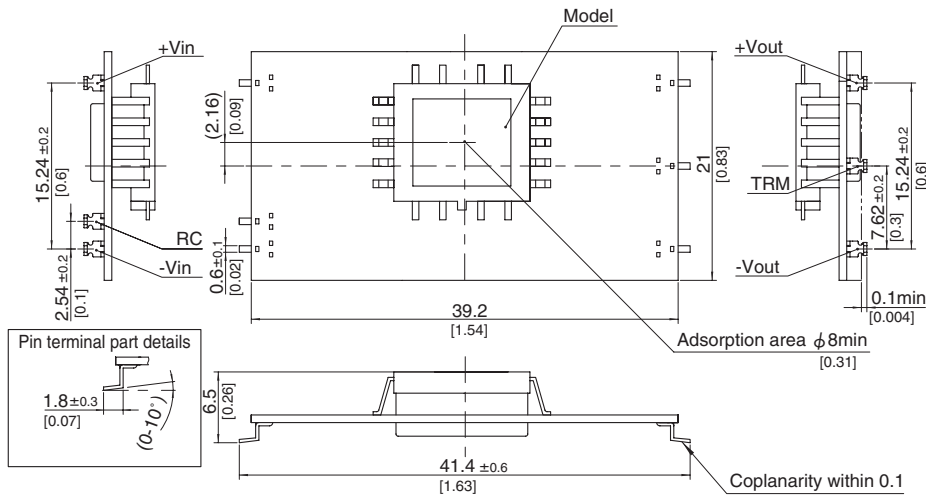
\*3 Ripple and Ripple Noise is measured by using measuring board with capacitor with in 25mm from output pin terminals.

\*4 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25 $^{\circ}$ C.

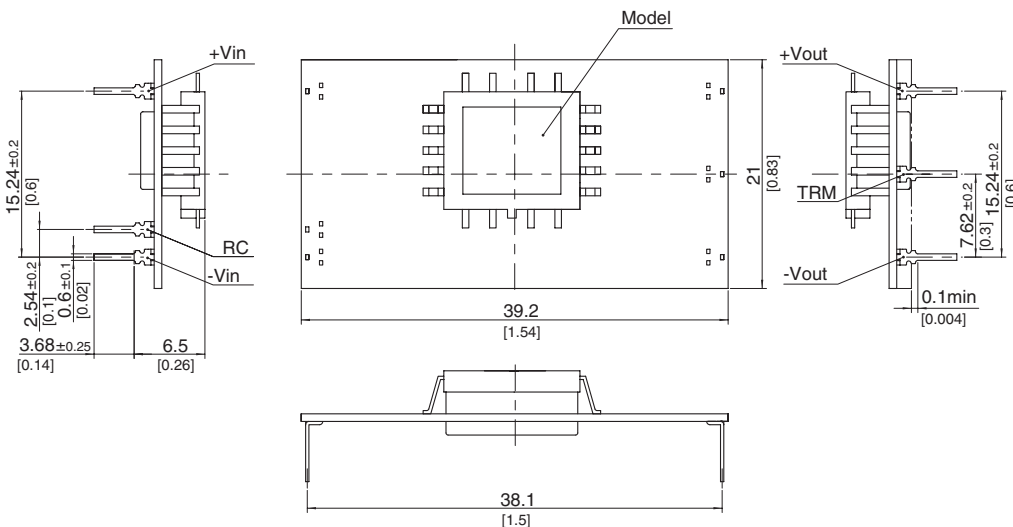
\* Parallel operation with other model is not possible.

## External view

1. SMD(type B)



2. DIP(type C)



- ※ Tolerance  $\pm 0.5$  [ $\pm 0.02$ ]
- ※ Dimensions in mm, [ ]=inches
- ※ Pin terminal thickness :  $0.3 \pm 0.1$  [0.012]
- ※ Pin terminal material : Copper alloy
- ※ Plating treatment of terminal : Lead free plating
- ※ Weight : 6g max

SE-SUC/SUT

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

## Cosel:

[SUS62415BP-G](#) [SUS61212BP-G](#) [SUS104805BP](#) [SUS100505B](#) [SUS32412B](#) [SUS101215BP](#) [SUS1R51205B](#)  
[SUS1R52415C](#) [SUS62415B](#) [SUS6483R3C](#) [SUS60505B](#) [SUS30505C](#) [SUS1R50505C](#) [SUS102415BP-G](#)  
[SUS10053R3B](#) [SUS10483R3C](#) [SUS32415C](#) [SUS1R54815B](#) [SUS32405BP-G](#) [SUS102405C-G](#) [SUS31205C](#)  
[SUS3053R3C](#) [SUS104812BP](#) [SUS1R5123R3BP](#) [SUS1R5243R3C](#) [SUS6053R3B](#) [SUS62405C-G](#) [SUS34805C](#)  
[SUS30505B](#) [SUS100505C-G](#) [SUS10243R3B](#) [SUS61205C](#) [SUS61205B](#) [SUS30512BP](#) [SUS62412BP](#) [SUS34812C](#)  
[SUS61215BP](#) [SUS1R50512C](#) [SUS104815BP](#) [SUS31212BP](#) [SUS102412BP](#) [SUS64812BP](#) [SUS102412C-G](#)  
[SUS60515C](#) [SUS60505C-G](#) [SUS30505BP-G](#) [SUS32405BP](#) [SUS6243R3B](#) [SUS101205B](#) [SUS3123R3C](#)  
[SUS1R51215B](#) [SUS1R50515C](#) [SUS34805BP](#) [SUS3483R3C](#) [SUS61212BP](#) [SUS32412BP-G](#) [SUS6243R3BP-G](#)  
[SUS1R52412BP](#) [SUS10483R3BP](#) [SUS3243R3B](#) [SUS62405C](#) [SUS64815BP](#) [SUS6123R3BP](#) [SUS1R54805C](#)  
[SUS102405C](#) [SUS3053R3BP](#) [SUS10053R3C](#) [SUS31215B](#) [SUS100515C](#) [SUS3243R3C](#) [SUS1R52405B](#)  
[SUS1R54815C](#) [SUS6483R3BP](#) [SUS6053R3C](#) [SUS32405C-G](#) [SUS62415C-G](#) [SUS64812B](#) [SUS31205BP](#)  
[SUS10123R3B](#) [SUS62415BP](#) [SUS1R5053R3C](#) [SUS1R5243R3BP](#) [SUS10483R3B](#) [SUS104812B](#) [SUS1R50512BP](#)  
[SUS60512BP](#) [SUS64815B](#) [SUS64805B](#) [SUS1R51205C](#) [SUS61205BP-G](#) [SUS101205C](#) [SUS30515B](#) [SUS62412B-](#)  
[G](#) [SUS6123R3B](#) [SUS1R52412B](#) [SUS10243R3C-G](#) [SUS102415B-G](#) [SUS31215BP](#) [SUS31205B](#) [SUS104805C](#)



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

**Телефон:** 8 (812) 309 58 32 (многоканальный)

**Факс:** 8 (812) 320-02-42

**Электронная почта:** [org@eplast1.ru](mailto:org@eplast1.ru)

**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.