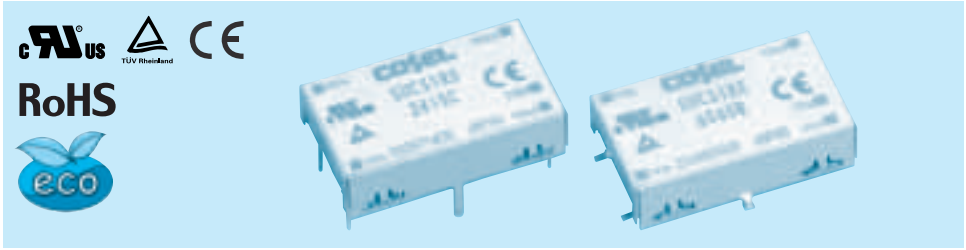
COSEL DC-DC Converters PCB Mount type

# SUCS1R5

## Ordering information

SUC ① S ② 1R5 ③ 12 ④ 05 ⑤ B ⑥ P ⑦ -□ ⑧



①Series name
②Single output
③Output wattage
④Input voltage
⑤Output voltage
⑥Mounting type
B :SMD
C :DIP
⑦Packing form
Blank:Plastic cover
P :Tray (SMD type)
⑧Optional
C :with coating (only DIP type)*

*Safety standards are pending

| MODEL | | SUCS1R5053R3 | SUCS1R50505 | SUCS1R50512 | SUCS1R50515 | SUCS1R5123R3 | SUCS1R51205 | SUCS1R51212 | SUCS1R51215 |
|---|---|---|---|---|---|---|---|---|---|
| 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 | 15 |
| | CURRENT[A] | 0.4 | 0.3 | 0.13 | 0.1 | 0.4 | 0.3 | 0.13 | 0.1 |

## SPECIFICATIONS

| | MODEL | | SUCS1R5053R3 | SUCS1R50505 | SUCS1R50512 | SUCS1R50515 | SUCS1R5123R3 | SUCS1R51205 | SUCS1R51212 | SUCS1R51215 |
|---|---|---|---|---|---|---|---|---|---|---|
| INPUT | VOLTAGE[V] | | DC4.5 - 9 | | | | DC9 - 18 | | | |
| | CURRENT[A] | *2 | 0.388typ | 0.417typ | 0.433typ | 0.417typ | 0.157typ | 0.169typ | 0.176typ | 0.169typ |
| | EFFICIENCY[%] | *2 | 68typ | 72typ | 72typ | 72typ | 70typ | 74typ | 74typ | 74typ |
| 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℃ *3 | 80max | 80max | 120max | 120max | 80max | 80max | 120max | 120max |
| | | -40 to -20℃ *3 | 120max | 120max | 150max | 150max | 120max | 120max | 150max | 150max |
| | RIPPLE NOISE[mVp-p] | -20 to +55℃ *3 | 120max | 120max | 150max | 150max | 120max | 120max | 150max | 150max |
| | | -40 to -20℃ *3 | 200max | 200max | 200max | 200max | 200max | 200max | 200max | 200max |
| | TEMPERATURE REGULATION[mV] | -20 to +55℃ | 50max | 50max | 150max | 180max | 50max | 50max | 150max | 180max |
| | | -40 to +55℃ | 80max | 80max | 240max | 290max | 80max | 80max | 240max | 290max |
| | 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 | | SUCS1R5243R3 | SUCS1R52405 | SUCS1R52412 | SUCS1R52415 | SUCS1R5483R3 | SUCS1R54805 | SUCS1R54812 | SUCS1R54815 |
|---|---|---|---|---|---|---|---|---|---|
| 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 | 15 |
| | CURRENT[A] | 0.4 | 0.3 | 0.13 | 0.1 | 0.4 | 0.3 | 0.13 | 0.1 |

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## SPECIFICATIONS

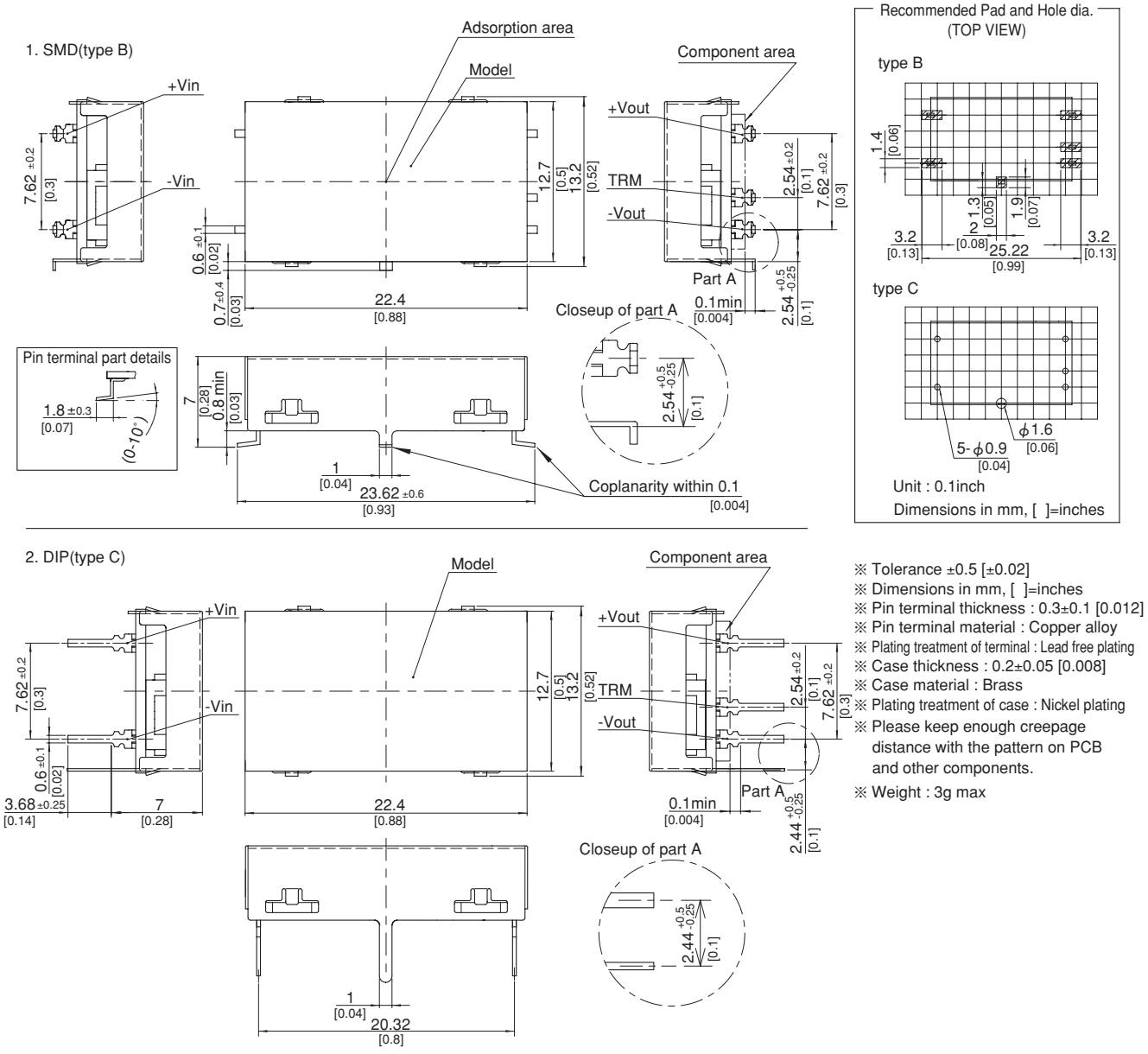
| | MODEL | | SUCS1R5243R3 | SUCS1R52405 | SUCS1R52412 | SUCS1R52415 | SUCS1R5483R3 | SUCS1R54805 | SUCS1R54812 | SUCS1R54815 |
|---|---|---|---|---|---|---|---|---|---|---|
| INPUT | VOLTAGE[V] | | DC18 - 36 | | | | DC36 - 76 | | | |
| | CURRENT[A] | *2 | 0.079typ | 0.084typ | 0.087typ | 0.083typ | 0.039typ | 0.042typ | 0.043typ | 0.042typ |
| | EFFICIENCY[%] | *2 | 70typ | 74typ | 75typ | 75typ | 70typ | 74typ | 75typ | 75typ |
| 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℃ *3 | 80max | 80max | 120max | 120max | 80max | 80max | 120max | 120max |
| | | -40 to -20℃ *3 | 120max | 120max | 150max | 150max | 120max | 120max | 150max | 150max |
| | RIPPLE NOISE[mVp-p] | -20 to +55℃ *3 | 120max | 120max | 150max | 150max | 120max | 120max | 150max | 150max |
| | | -40 to -20℃ *3 | 200max | 200max | 200max | 200max | 200max | 200max | 200max | 200max |
| | TEMPERATURE REGULATION[mV] | -20 to +55℃ | 50max | 50max | 150max | 180max | 50max | 50max | 150max | 180max |
| | | -40 to +55℃ | 80max | 80max | 240max | 290max | 80max | 80max | 240max | 290max |
| | 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

| | | |
|---|---|---|
| ISOLATION | INPUT-OUTPUT | AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃) |
| | INPUT-CASE | AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃) |
| | OUTPUT-CASE | AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃) |
| ENVIRONMENT | OPERATING TEMP.,HUMID.AND ALTITUDE | -40 to +85℃, 20 - 95%RH (Non condensing) (Required Derating), 3,000m (10,000feet) max |
| | STORAGE TEMP.,HUMID.AND ALTITUDE | -40 to +100℃, 20 - 95%RH (Non condensing), 9,000m (30,000feet) max |
| | VIBRATION | 10 - 55Hz, 98.0m/s² (10G), 3minutes period, 60minutes each along X, Y and Z axis |
| | IMPACT | 490.3m/s² (50G), 11ms, once each along X, Y and Z axis |
| SAFETY | AGENCY APPROVALS | UL60950-1, C-UL, EN60950-1 |
| OTHERS | CASE SIZE/WEIGHT | 22.4×7.0×13.2mm [0.88×0.28×0.52 inches] (W×H×D) / 3g max |
| | COOLING METHOD | Convection/Forced air |

*1 SUCW1R5xx12/SUCW1R5xx15 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℃.
* Parallel operation with other model is not possible.

## External view



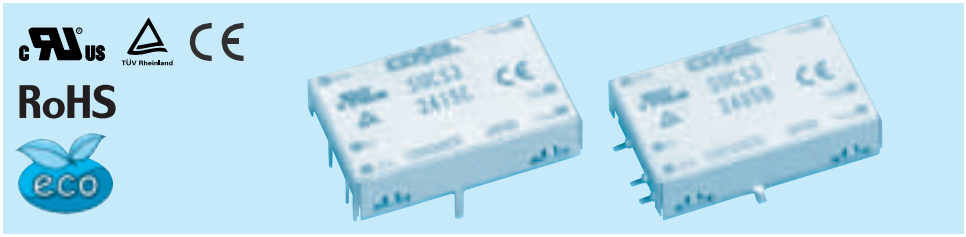

※ Tolerance ±0.5 [±0.02]
※ Dimensions in mm, [ ]=inches
※ Pin terminal thickness : 0.3±0.1 [0.012]
※ Pin terminal material : Copper alloy
※ Plating treatment of terminal : Lead free plating
※ Case thickness : 0.2±0.05 [0.008]
※ Case material : Brass
※ Plating treatment of case : Nickel plating
※ Please keep enough creepage distance with the pattern on PCB and other components.
※ Weight : 3g max

COSEL DC-DC Converters PCB Mount type

# SUCS3

## Ordering information

SUC ① S ② 3 ③ 12 ④ 05 ⑤ B ⑥ P ⑦ -□ ⑧



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

* Safety standards are pending

| MODEL | | SUCS3053R3 | SUCS30505 | SUCS30512 | SUCS30515 | SUCS3123R3 | SUCS31205 | SUCS31212 | SUCS31215 |
|---|---|---|---|---|---|---|---|---|---|
| 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 | | SUCS3053R3 | SUCS30505 | SUCS30512 | SUCS30515 | SUCS3123R3 | SUCS31205 | SUCS31212 | SUCS31215 |
|---|---|---|---|---|---|---|---|---|---|---|
| INPUT | VOLTAGE[V] | | DC4.5 - 9 | | | | DC9 - 18 | | | |
| | CURRENT[A] | *2 | 0.550typ | 0.800typ | 0.780typ | 0.780typ | 0.223typ | 0.325typ | 0.317typ | 0.321typ |
| | EFFICIENCY[%] | *2 | 72typ | 75typ | 77typ | 77typ | 74typ | 77typ | 79typ | 78typ |
| 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℃ *3 | 80max | 80max | 120max | 120max | 80max | 80max | 120max | 120max |
| | | -40 to -20℃ *3 | 120max | 120max | 150max | 150max | 120max | 120max | 150max | 150max |
| | RIPPLE NOISE[mVp-p] | -20 to +55℃ *3 | 120max | 120max | 150max | 150max | 120max | 120max | 150max | 150max |
| | | -40 to -20℃ *3 | 200max | 200max | 200max | 200max | 200max | 200max | 200max | 200max |
| | TEMPERATURE REGULATION[mV] | -20 to +55℃ | 50max | 50max | 150max | 180max | 50max | 50max | 150max | 180max |
| | | -40 to +55℃ | 80max | 80max | 240max | 290max | 80max | 80max | 240max | 290max |
| | 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 | | SUCS3243R3 | SUCS32405 | SUCS32412 | SUCS32415 | SUCS3483R3 | SUCS34805 | SUCS34812 | SUCS34815 |
|---|---|---|---|---|---|---|---|---|---|
| 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 |

SU-SUC/SUT

## SPECIFICATIONS

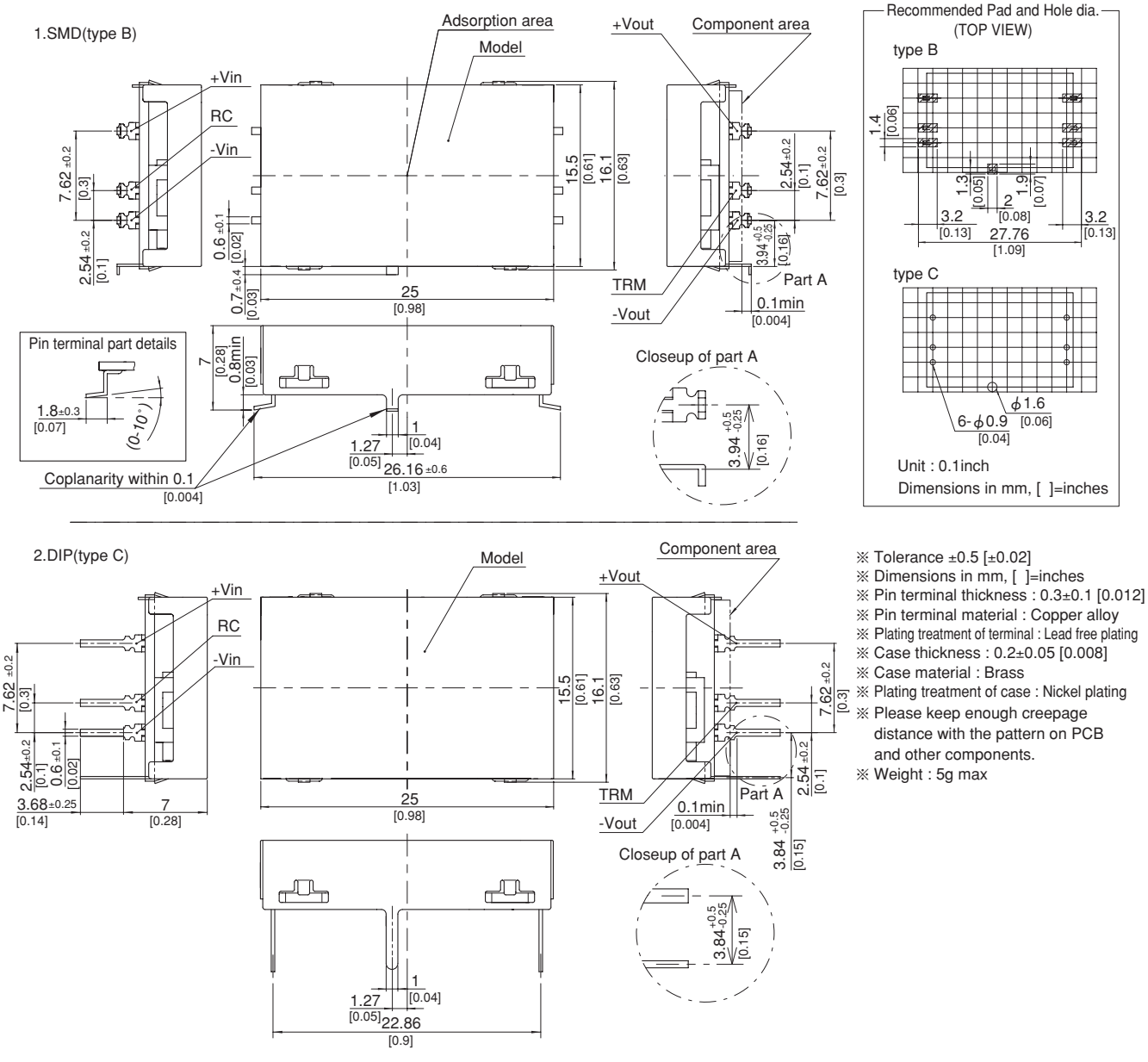
| | MODEL | | SUCS3243R3 | SUCS32405 | SUCS32412 | SUCS32415 | SUCS3483R3 | SUCS34805 | SUCS34812 | SUCS34815 |
|---|---|---|---|---|---|---|---|---|---|---|
| INPUT | VOLTAGE[V] | | DC18 - 36 | | | | DC36 - 76 | | | |
| | CURRENT[A] | *2 | 0.114typ | 0.163typ | 0.159typ | 0.161typ | 0.057typ | 0.082typ | 0.080typ | 0.080typ |
| | EFFICIENCY[%] | *2 | 73typ | 77typ | 79typ | 78typ | 72typ | 77typ | 79typ | 79typ |
| 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℃ *3 | 80max | 80max | 120max | 120max | 80max | 80max | 120max | 120max |
| | | -40 to -20℃ *3 | 120max | 120max | 150max | 150max | 120max | 120max | 150max | 150max |
| | RIPPLE NOISE[mVp-p] | -20 to +55℃ *3 | 120max | 120max | 150max | 150max | 120max | 120max | 150max | 150max |
| | | -40 to -20℃ *3 | 200max | 200max | 200max | 200max | 200max | 200max | 200max | 200max |
| | TEMPERATURE REGULATION[mV] | -20 to +55℃ | 50max | 50max | 150max | 180max | 50max | 50max | 150max | 180max |
| | | -40 to +55℃ | 80max | 80max | 240max | 290max | 80max | 80max | 240max | 290max |
| | 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

| | | |
|---|---|---|
| ISOLATION | INPUT-OUTPUT | AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃) |
| | INPUT-CASE | AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃) |
| | OUTPUT-CASE | AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃) |
| ENVIRONMENT | OPERATING TEMP.,HUMID.AND ALTITUDE | -40 to +85℃, 20 - 95%RH (Non condensing) (Required Derating), 3,000m (10,000feet) max |
| | STORAGE TEMP.,HUMID.AND ALTITUDE | -40 to +100℃, 20 - 95%RH (Non condensing), 9,000m (30,000feet) max |
| | VIBRATION | 10 - 55Hz, 98.0m/s² (10G), 3minutes period, 60minutes each along X, Y and Z axis |
| | IMPACT | 490.3m/s² (50G), 11ms, once each along X, Y and Z axis |
| SAFETY | AGENCY APPROVALS | UL60950-1, C-UL, EN60950-1 |
| OTHERS | CASE SIZE/WEIGHT | 25×7.0×16.1mm [0.98×0.28×0.63 inches] (W×H×D) / 5g max |
| | COOLING METHOD | Convection/Forced air |

*1 SUCW3xx12/SUCW3xx15 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℃.
* Parallel operation with other model is not possible.

## External view




※ Tolerance ±0.5 [±0.02]
※ Dimensions in mm, [ ]=inches
※ Pin terminal thickness : 0.3±0.1 [0.012]
※ Pin terminal material : Copper alloy
※ Plating treatment of terminal : Lead free plating
※ Case thickness : 0.2±0.05 [0.008]
※ Case material : Brass
※ Plating treatment of case : Nickel plating
※ Please keep enough creepage distance with the pattern on PCB and other components.
※ Weight : 5g max

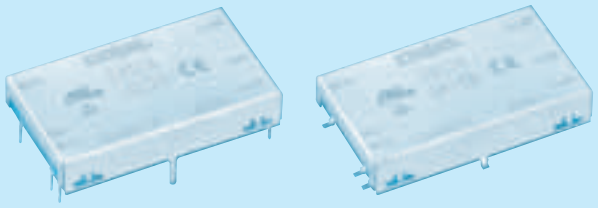
COSEL DC-DC Converters PCB Mount type

# SUCS6

## Ordering information

SUC S 6 12 05 B P -□

① ② ③ ④ ⑤ ⑥ ⑦ ⑧



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

* Safety standards are pending

| MODEL | | SUCS6053R3 | SUCS60505 | SUCS60512 | SUCS60515 | SUCS6123R3 | SUCS61205 | SUCS61212 | SUCS61215 |
|---|---|---|---|---|---|---|---|---|---|
| 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 | 15 |
| | CURRENT[A] | 1.2 | 1 | 0.5 | 0.4 | 1.35 | 1.2 | 0.5 | 0.4 |

## SPECIFICATIONS

| | MODEL | | SUCS6053R3 | SUCS60505 | SUCS60512 | SUCS60515 | SUCS6123R3 | SUCS61205 | SUCS61212 | SUCS61215 |
|---|---|---|---|---|---|---|---|---|---|---|
| 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℃ *3 | 80max | 80max | 120max | 120max | 80max | 80max | 120max | 120max |
| | | -40 to -20℃ *3 | 120max | 120max | 150max | 150max | 120max | 120max | 150max | 150max |
| | RIPPLE NOISE[mVp-p] | -20 to +55℃ *3 | 120max | 120max | 150max | 150max | 120max | 120max | 150max | 150max |
| | | -40 to -20℃ *3 | 200max | 200max | 200max | 200max | 200max | 200max | 200max | 200max |
| | TEMPERATURE REGULATION[mV] | -20 to +55℃ | 50max | 50max | 150max | 180max | 50max | 50max | 150max | 180max |
| | | -40 to +55℃ | 80max | 80max | 240max | 290max | 80max | 80max | 240max | 290max |
| | 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 | | SUCS6243R3 | SUCS62405 | SUCS62412 | SUCS62415 | SUCS6483R3 | SUCS64805 | SUCS64812 | SUCS64815 |
|---|---|---|---|---|---|---|---|---|---|
| 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 | 15 |
| | CURRENT[A] | 1.35 | 1.2 | 0.5 | 0.4 | 1.35 | 1.2 | 0.5 | 0.4 |

SU-SUC/SUT

## SPECIFICATIONS

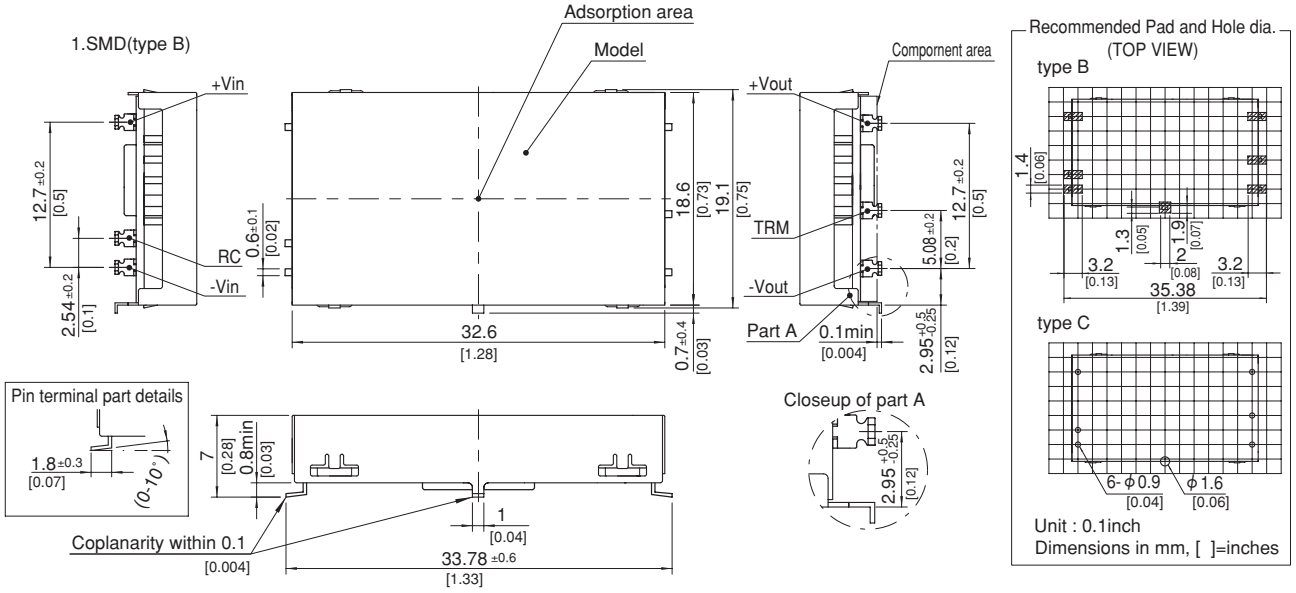
| | MODEL | | SUCS6243R3 | SUCS62405 | SUCS62412 | SUCS62415 | SUCS6483R3 | SUCS64805 | SUCS64812 | SUCS64815 |
|---|---|---|---|---|---|---|---|---|---|---|
| INPUT | VOLTAGE[V] | | DC18 - 36 | | | | DC36 - 76 | | | |
| | CURRENT[A] | *2 | 0.248typ | 0.309typ | 0.291typ | 0.291typ | 0.121typ | 0.154typ | 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℃ *3 | 80max | 80max | 120max | 120max | 80max | 80max | 120max | 120max |
| | | -40 to -20℃ *3 | 120max | 120max | 150max | 150max | 120max | 120max | 150max | 150max |
| | RIPPLE NOISE[mVp-p] | -20 to +55℃ *3 | 120max | 120max | 150max | 150max | 120max | 120max | 150max | 150max |
| | | -40 to -20℃ *3 | 200max | 200max | 200max | 200max | 200max | 200max | 200max | 200max |
| | TEMPERATURE REGULATION[mV] | -20 to +55℃ | 50max | 50max | 150max | 180max | 50max | 50max | 150max | 180max |
| | | -40 to +55℃ | 80max | 80max | 240max | 290max | 80max | 80max | 240max | 290max |
| | 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) | | | | | | | |

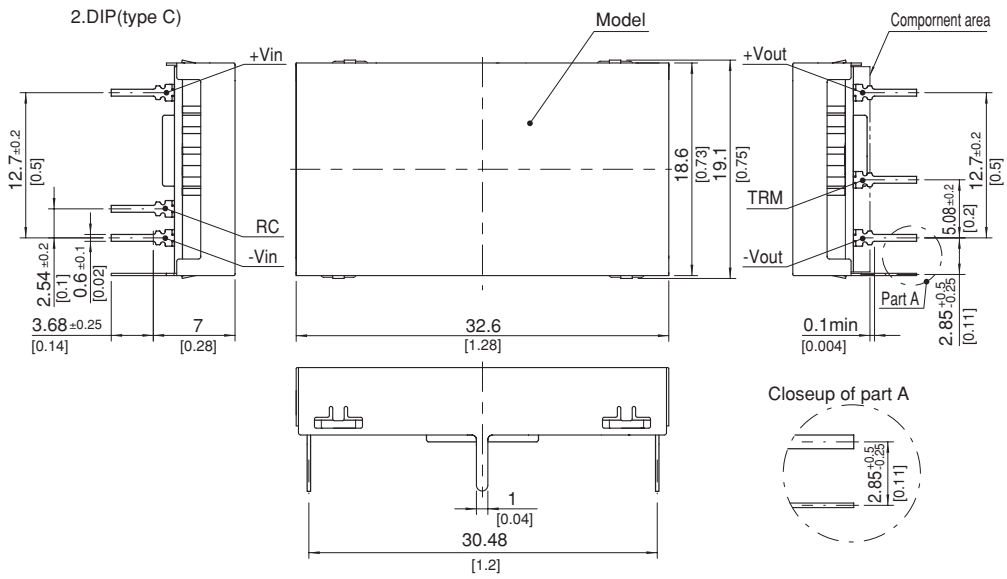
## GENERAL SPECIFICATIONS

| | | |
|---|---|---|
| ISOLATION | INPUT-OUTPUT | AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃) |
| | INPUT-CASE | AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃) |
| | OUTPUT-CASE | AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃) |
| ENVIRONMENT | OPERATING TEMP.,HUMID.AND ALTITUDE | -40 to +85℃, 20 - 95%RH (Non condensing) (Required Derating), 3,000m (10,000feet) max |
| | STORAGE TEMP.,HUMID.AND ALTITUDE | -40 to +100℃, 20 - 95%RH (Non condensing), 9,000m (30,000feet) max |
| | VIBRATION | 10 - 55Hz, 98.0m/s² (10G), 3minutes period, 60minutes each along X, Y and Z axis |
| | IMPACT | 490.3m/s² (50G), 11ms, once each along X, Y and Z axis |
| SAFETY | AGENCY APPROVALS | UL60950-1, C-UL, EN60950-1 |
| OTHERS | CASE SIZE/WEIGHT | 32.6×7.0×19.1mm [1.28×0.28×0.75 inches] (W×H×D) / 7g max |
| | COOLING METHOD | Convection/Forced air |

*1 SUCW6xx12/SUCW6xx15 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℃.
* Parallel operation with other model is not possible.

## External view



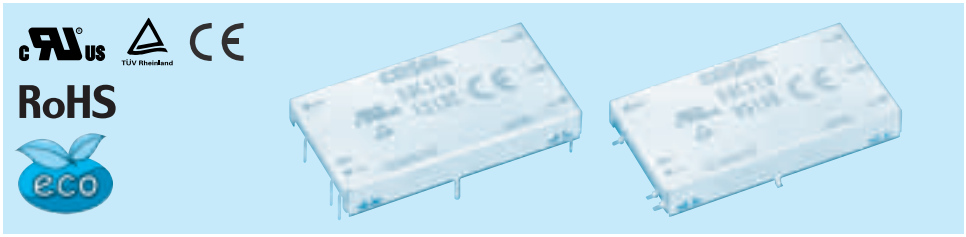

※ Tolerance ±0.5 [±0.02]
※ Dimensions in mm, [ ]=inches
※ Pin terminal thickness : 0.3±0.1 [0.012]
※ Pin terminal material : Copper alloy
※ Plating treatment of terminal : Lead free plating
※ Case thickness : 0.2±0.05 [0.008]
※ Case material : Brass
※ Plating treatment of case : Nickel plating
※ Please keep enough creepage distance with the pattern on PCB and other components.
※ Weight : 7g max

COSEL DC-DC Converters PCB Mount type

# SUCS10

**Ordering information**

SUC ① S ② 10 ③ 12 ④ 05 ⑤ B ⑥ P ⑦ -□ ⑧



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

* Safety standards are pending

| MODEL | | SUCS10053R3 | SUCS100505 | SUCS100512 | SUCS100515 | SUCS10123R3 | SUCS101205 | SUCS101212 | SUCS101215 |
|---|---|---|---|---|---|---|---|---|---|
| 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 | 15 |
| | CURRENT[A] | 2.6 | 2 | 0.9 | 0.7 | 2.6 | 2 | 1 | 0.8 |

## SPECIFICATIONS

| | MODEL | | SUCS10053R3 | SUCS100505 | SUCS100512 | SUCS100515 | SUCS10123R3 | SUCS101205 | SUCS101212 | SUCS101215 |
|---|---|---|---|---|---|---|---|---|---|---|
| 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℃ *3 | 80max | 80max | 120max | 120max | 80max | 80max | 120max | 120max |
| | | -40 to -20℃ *3 | 120max | 120max | 150max | 150max | 120max | 120max | 150max | 150max |
| | RIPPLE NOISE[mVp-p] | -20 to +55℃ *3 | 120max | 120max | 150max | 150max | 120max | 120max | 150max | 150max |
| | | -40 to -20℃ *3 | 200max | 200max | 200max | 200max | 200max | 200max | 200max | 200max |
| | TEMPERATURE REGULATION[mV] | -20 to +55℃ | 50max | 50max | 150max | 180max | 50max | 50max | 150max | 180max |
| | | -40 to +55℃ | 80max | 80max | 240max | 290max | 80max | 80max | 240max | 290max |
| | 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 | | SUCS10243R3 | SUCS102405 | SUCS102412 | SUCS102415 | SUCS10483R3 | SUCS104805 | SUCS104812 | SUCS104815 |
|---|---|---|---|---|---|---|---|---|---|
| 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 | 15 |
| | CURRENT[A] | 2.6 | 2 | 1 | 0.8 | 2.6 | 2 | 1 | 0.8 |

SU-SUC/SUT

## SPECIFICATIONS

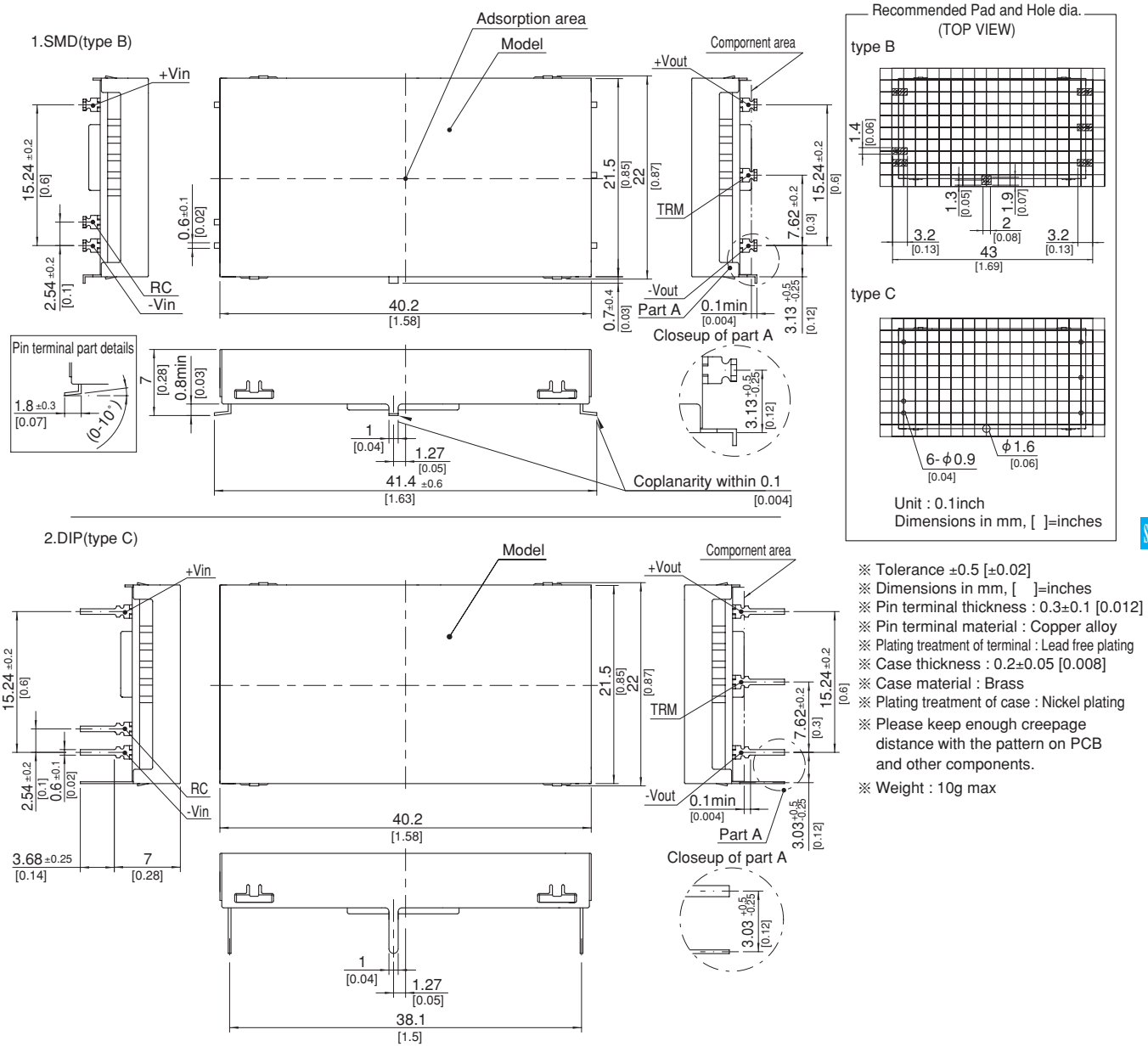
| | MODEL | | SUCS10243R3 | SUCS102405 | SUCS102412 | SUCS102415 | SUCS10483R3 | SUCS104805 | SUCS104812 | SUCS104815 |
|---|---|---|---|---|---|---|---|---|---|---|
| INPUT | VOLTAGE[V] | | DC18 - 36 | | | | DC36 - 76 | | | |
| | CURRENT[A] | *2 | 0.436typ | 0.490typ | 0.575typ | 0.575typ | 0.218typ | 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℃ *3 | 80max | 80max | 120max | 120max | 80max | 80max | 120max | 120max |
| | | -40 to -20℃ *3 | 120max | 120max | 150max | 150max | 120max | 120max | 150max | 150max |
| | RIPPLE NOISE[mVp-p] | -20 to +55℃ *3 | 120max | 120max | 150max | 150max | 120max | 120max | 150max | 150max |
| | | -40 to -20℃ *3 | 200max | 200max | 200max | 200max | 200max | 200max | 200max | 200max |
| | TEMPERATURE REGULATION[mV] | -20 to +55℃ | 50max | 50max | 150max | 180max | 50max | 50max | 150max | 180max |
| | | -40 to +55℃ | 80max | 80max | 240max | 290max | 80max | 80max | 240max | 290max |
| | 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

| | | |
|---|---|---|
| ISOLATION | INPUT-OUTPUT | AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃) |
| | INPUT-CASE | AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃) |
| | OUTPUT-CASE | AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃) |
| ENVIRONMENT | OPERATING TEMP.,HUMID.AND ALTITUDE | -40 to +85℃, 20 - 95%RH (Non condensing) (Required Derating), 3,000m (10,000feet) max |
| | STORAGE TEMP.,HUMID.AND ALTITUDE | -40 to +100℃, 20 - 95%RH (Non condensing), 9,000m (30,000feet) max |
| | VIBRATION | 10 - 55Hz, 98.0m/s² (10G), 3minutes period, 60minutes each along X, Y and Z axis |
| | IMPACT | 490.3m/s² (50G), 11ms, once each along X, Y and Z axis |
| SAFETY | AGENCY APPROVALS | UL60950-1, C-UL, EN60950-1 |
| OTHERS | CASE SIZE/WEIGHT | 40.2×7.0×22.0mm [1.58×0.28×0.87 inches] (W×H×D) / 10g max |
| | COOLING METHOD | Convection/Forced air |

*1 SUCW10xx12/SUCW10xx15 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℃.
* Parallel operation with other model is not possible.

## External view




※ Tolerance ±0.5 [±0.02]
※ Dimensions in mm, [ ]=inches
※ Pin terminal thickness : 0.3±0.1 [0.012]
※ Pin terminal material : Copper alloy
※ Plating treatment of terminal : Lead free plating
※ Case thickness : 0.2±0.05 [0.008]
※ Case material : Brass
※ Plating treatment of case : Nickel plating
※ Please keep enough creepage distance with the pattern on PCB and other components.
※ Weight : 10g max

# Mouser Electronics

Authorized Distributor

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Cosel:

SUCS102415C SUCS6483R3BP SUCS32415C SUCS30512C-G SUCS1R50512B SUCS32412C SUCS100515B SUCS1R51212C-C SUCS64815C SUCS62415C-C SUCS1R5243R3C SUCS101215C-C SUCS32412B-G SUCS1R52405BP SUCS6123R3C-C SUCS102415B-G SUCS34805C-C SUCS31212C-G SUCS6053R3C-G SUCS1R54812BP SUCS102412B-G SUCS60512C SUCS101205BP SUCS1R5053R3C SUCS1R54815B SUCS3243R3B SUCS64805BP SUCS104805B SUCS102405C-C SUCS61212C-G SUCS32415B SUCS64812C-C SUCS62412BP SUCS31215BP SUCS61215C SUCS101212B SUCS102412C SUCS31205C SUCS3483R3BP SUCS30505C SUCS100505C SUCS1R51215C SUCS101212C-C SUCS1R54815C-C SUCS6243R3B-G SUCS6243R3C SUCS1R50512C-C SUCS1R54805BP SUCS32405BP SUCS62405BP SUCS61205BP SUCS60505B SUCS32405C-C SUCS1R51205BP SUCS10243R3B SUCS101205B-G SUCS31205B SUCS30515C SUCS10483R3BP SUCS100515C-C SUCS64812B SUCS3053R3BP SUCS1R52405B SUCS60515C-G SUCS102415B SUCS1R52415C SUCS31212C-C SUCS3243R3C-G SUCS62405C-C SUCS34815BP SUCS30512B SUCS64815BP SUCS101215C SUCS6053R3C SUCS1R51205B SUCS104815BP SUCS60512BP SUCS3243R3BP-G SUCS1R52412B SUCS61212C-C SUCS62412C SUCS64805C-C SUCS62415C SUCS104805C-C SUCS10483R3B SUCS102405B-G SUCS1R54812B SUCS104812C SUCS3483R3C-C SUCS30505B SUCS1R5483R3C SUCS1R5053R3BP SUCS32415C-G SUCS101205C-C SUCS31205BP-G SUCS1R5243R3BP SUCS10123R3BP SUCS100515C SUCS6483R3B SUCS6243R3B

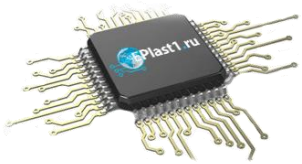
Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

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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**Электронная почта:** org@eplast1.ru
**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.