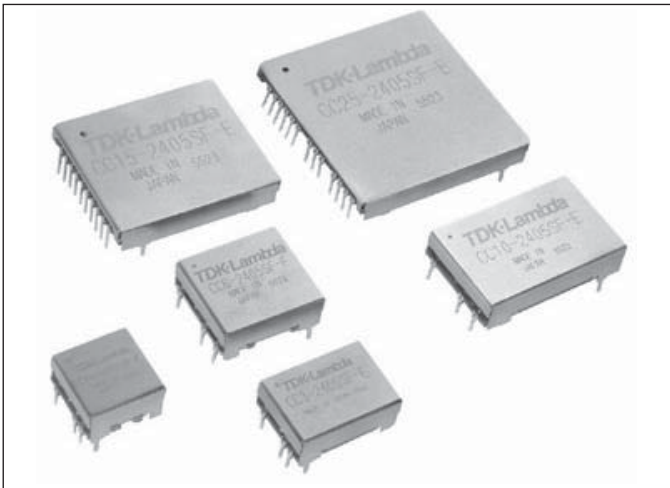


CC SERIES

DC/DC Single & Dual Output: 1.5 - 25 Watts



Features

- Compact/High Density product
- 2.1 input range
- Input - Output isolation
- 5V, 12V, 24V and 48V input options
- Single and Dual output models
- Output voltage trim (1.5W to 10W models)
- No tantalum or aluminium capacitor
- Safety: UL1950, EN60950
- Remote ON/OFF standard on all models (except SIP)
- Lightweight (no potting)
- Through Hole/DIP and SMD type available
- International safety approvals

General Specifications

| | |
|---------------------------------|--|
| Input Voltage: | 5V (4.5 - 9) 12V (9 - 18) 24V (18 - 36) 48V (36 - 76) |
| Efficiency: | Model dependant 71 - 90% |
| Output Voltage Accuracy: | ±3% 1.5 - 10W, ±5% 15 - 25W |
| Minimum Load: | Zero |
| Voltage Trim: | 3V (3.15 - 3.6) 5V (4.76 - 6) (1.5-10W) 12/15V (11.4 - 15) ±12/15V (±11.4 - 15) |
| Load Regulation: | 3.3V/5V 40mV (120mV CC15, 200mV CC25) 12/15V 100mV, ±12/15V 600mV |
| Protection: | Output current limiting with auto recovery, CC15, CC25 shutdown type. |
| Remote On/OFF: | Yes |
| Safety: | UL1950-1, EN60950-1 |
| Case Material: | Steel |
| Operating Temp: | -40°C to +85°C derate linearly to 40% from 50°C |
| Dimensions & Weight: | CC1RS: 16.6 x 16.5 x 8.5mm 3.2g CC3: 22.9 x 16.6 x 8.5mm 4.5g CC6: 22.9 x 21.1 x 8.5mm 5.8g CC10: 35.6 x 22.6 x 8.5mm 10g CC15: 38.1 x 32.1 x 7.5mm 12.5g CC25: 43.2 x 44.9 x 7.5mm 20g |

Description

The **CCE** series DC/DC converters offer industry leading power density in power levels from 1.5 - 25watts.

A large range of input voltage options from 5 - 48VDC are available in single and dual output.

The 1.5 - 10 watt models have a simple "trim" function allowing the voltage to be set from 12V to 15V by one simple connection. The same applies for the ±12V to ±15V models.

The dual output models (±12V to ±15V) can have their outputs connected in series to provide 24V or 30V output.

Surface mount (**SMD**) is available across all models, whilst the 3 Watt models are also available in Single-in-Line Package (**SIP**).

For more detailed information on the CC Series, request Long Data Sheet Specification.

Options

- R** 1.5 - 25W models: Replace F as part number with "R" for Horizontal SMD type package (**CC3-0505SR-E**).
- S** 3W models: Replace F with "S" in model for SIP style packaging (**CC3-4812SS-E**).
1. The output voltage of 12V and ±12V, can be set to 15V, ±15V by connecting the TRIM pin to -V out. (1.5 - 10W models).
 2. 24V output is possible by connecting the ±12 in series.
 3. 30V output is possible by connecting the ±15V in series.

| Pin | Single | Dual |
|-----|--------|--------|
| 1 | +V in | +V in |
| 2 | RC | RC |
| 3 | -V in | -V in |
| 4 | NC | -V out |
| 5 | -V out | Com |
| 6 | TRIM | TRIM |
| 7 | +V out | +V out |

| Pin | Single | Pin | Dual |
|-----|--------|-----|--------|
| 1 | NC | 10 | NC |
| 2 | NC | 11 | NC |
| 3 | RC | 12 | +V out |
| 4 | NC | 13 | +V out |
| 5 | NC | 14 | +V out |
| 6 | +V in | 15 | -V out |
| 7 | +V in | 16 | -V out |
| 8 | -V in | 17 | NC |
| 9 | -V in | | |

CC SERIES

AC/DC Single & Dual Output: 1.5 - 25 Watts

| Model | Input V | Output | |
|--------------------|---------|-----------|-----------|
| | | V | A |
| CC1R5 - 0503SF - E | 5V | 3.3V | 400mA |
| CC1R5 - 0505SF - E | | 5V | 300mA |
| CC1R5 - 0512SF - E | | 12V/15V | 125/100mA |
| CC1R5 - 0512DF - E | | ±12V/±15V | ±60/±50mA |
| CC1R5 - 1203SF - E | 12V | 3.3V | 400mA |
| CC1R5 - 1205SF - E | | 5V | 300mA |
| CC1R5 - 1212SF - E | | 12V/15V | 125/100mA |
| CC1R5 - 1212DF - E | | ±12V/±15V | ±60/±50mA |
| CC1R5 - 2403SF - E | 24V | 3.3V | 400mA |
| CC1R5 - 2405SF - E | | 5V | 300mA |
| CC1R5 - 2412SF - E | | 12V/15V | 125/100mA |
| CC1R5 - 2412DF - E | | ±12V/±15V | ±60/±50mA |
| CC1R5 - 4803SF - E | 48V | 3.3V | 400mA |
| CC1R5 - 4805SF - E | | 5V | 300mA |
| CC1R5 - 4812SF - E | | 12V/15V | 125/100mA |
| CC1R5 - 4812DF - E | | ±12V/±15V | ±60/±50mA |

Note:

1. Replace F with "R" in model for **SMD** style package (CC1R5-2412SR-E)

| Model | Input V | Output | |
|------------------|---------|-----------|-------------|
| | | V | A |
| CC3 - 0503SF - E | 5V | 3.3V | 800mA |
| CC3 - 0505SF - E | | 5V | 600mA |
| CC3 - 0512SF - E | | 12V/15V | 250/200mA |
| CC3 - 0512DF - E | | ±12V/±15V | ±125/±100mA |
| CC3 - 1203SF - E | 12V | 3.3V | 800mA |
| CC3 - 1205SF - E | | 5V | 600mA |
| CC3 - 1212SF - E | | 12V/15V | 250/200mA |
| CC3 - 1212DF - E | | ±12V/±15V | ±125/±100mA |
| CC3 - 2403SF - E | 24V | 3.3V | 800mA |
| CC3 - 2405SF - E | | 5V | 600mA |
| CC3 - 2412SF - E | | 12V/15V | 250/200mA |
| CC3 - 2412DF - E | | ±12V/±15V | ±125/±100mA |
| CC3 - 4803SF - E | 48V | 3.3V | 800mA |
| CC3 - 4805SF - E | | 5V | 600mA |
| CC3 - 4812SF - E | | 12V/15V | 250/200mA |
| CC3 - 4812DF - E | | ±12V/±15V | ±125/±100mA |

Note:

1. Replace F with "R" in model for **SMD** style package (CC1R5-2412SR-E)

2. Replace F with "S" in model for **SIP** style package (CC3-4812SS-E)

| Model | Input V | Output | |
|------------------|---------|-----------|-------------|
| | | V | A |
| CC6 - 0503SF - E | 5V | 3.3V | 1200mA |
| CC6 - 0505SF - E | | 5V | 1000mA |
| CC6 - 0512SF - E | | 12V/15V | 500/400mA |
| CC6 - 0512DF - E | | ±12V/±15V | ±250/±200mA |
| CC6 - 1203SF - E | 12V | 3.3V | 1200mA |
| CC6 - 1205SF - E | | 5V | 1200mA |
| CC6 - 1212SF - E | | 12V/15V | 500/400mA |
| CC6 - 1212DF - E | | ±12V/±15V | ±250/±200mA |
| CC6 - 2403SF - E | 24V | 3.3V | 1200mA |
| CC6 - 2405SF - E | | 5V | 1200mA |
| CC6 - 2412SF - E | | 12V/15V | 500/400mA |
| CC6 - 2412DF - E | | ±12V/±15V | ±250/±200mA |
| CC6 - 4803SF - E | 48V | 3.3V | 1200mA |
| CC6 - 4805SF - E | | 5V | 1200mA |
| CC6 - 4812SF - E | | 12V/15V | 500/400mA |
| CC6 - 4812DF - E | | ±12V/±15V | ±250/±200mA |

Note:

1. Replace F with "R" in model **SMD** style package (CC6-2412SR-E)

| Model | Input V | Output | |
|-------------------|---------|-----------|-------------|
| | | V | A |
| CC10 - 0503SF - E | 5V | 3.3V | 2500mA |
| CC10 - 0505SF - E | | 5V | 2000mA |
| CC10 - 0512SF - E | | 12V/15V | 1000/800mA |
| CC10 - 0512DF - E | | ±12V/±15V | ±450/±360mA |
| CC10 - 1203SF - E | 12V | 3.3V | 2500mA |
| CC10 - 1205SF - E | | 5V | 2000mA |
| CC10 - 1212SF - E | | 12V/15V | 800/640mA |
| CC10 - 1212DF - E | | ±12V/±15V | ±400/±320mA |
| CC10 - 2403SF - E | 24V | 3.3V | 2500mA |
| CC10 - 2405SF - E | | 5V | 2000mA |
| CC10 - 2412SF - E | | 12V/15V | 1000/800mA |
| CC10 - 2412DF - E | | ±12V/±15V | ±450/±360mA |
| CC10 - 4803SF - E | 48V | 3.3V | 2500mA |
| CC10 - 4805SF - E | | 5V | 2000mA |
| CC10 - 4812SF - E | | 12V/15V | 1000/800mA |
| CC10 - 4812DF - E | | ±12V/±15V | ±450/±360mA |

Note:

1. Replace F with "R" in model **SMD** style package (CC10-2412SR-E)

| Model | Input V | Output | |
|-------------------|---------|--------|--------|
| | | V | A |
| CC15 - 2403SF - E | 24V | 3.3V | 4500mA |
| CC15 - 2405SF - E | | 5V | 3000mA |

Note:

1. Replace F with "R" in model **SMD** style package (CC15-2405SR-E)

| Model | Input V | Output | |
|-------------------|---------|--------|--------|
| | | V | A |
| CC25 - 2403SF - E | 24V | 3.3V | 7500mA |
| CC25 - 2405SF - E | | 5V | 5000mA |

Note:

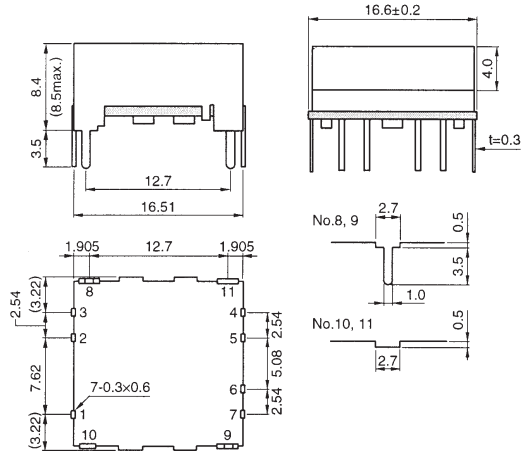
1. Replace F with "R" in model **SMD** style package (CC25-2405SR-E)

CC SERIES

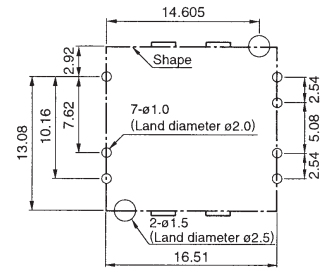
AC/DC Single & Dual Output: 1.5 - 25 Watts

CC1RS Type

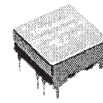
SHAPES AND DIMENSIONS
CC1R5-□□□□□F-E (DIP TYPE)



RECOMMENDED PWB HOLE SIZE, LOCATION
[TOP VIEW]

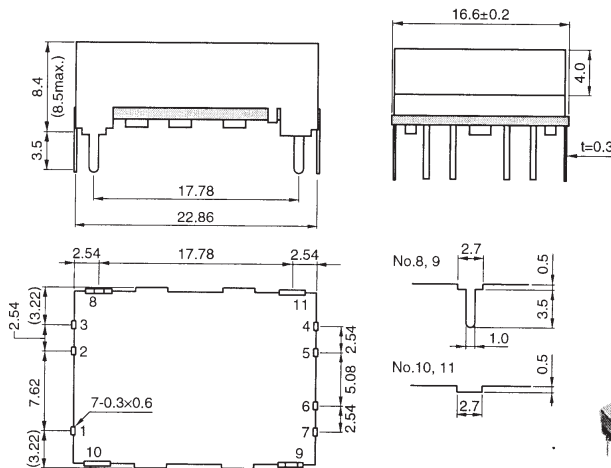


Dimensions in mm
Tolerance: ±0.5

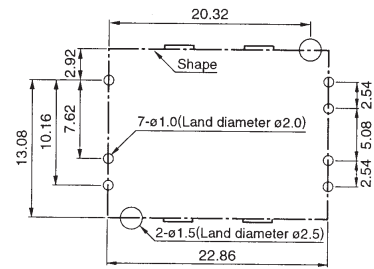


CC3 Type

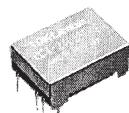
SHAPES AND DIMENSIONS
CC3-□□□□□F-E (DIP TYPE)



RECOMMENDED PWB HOLE SIZE, LOCATION
[TOP VIEW]

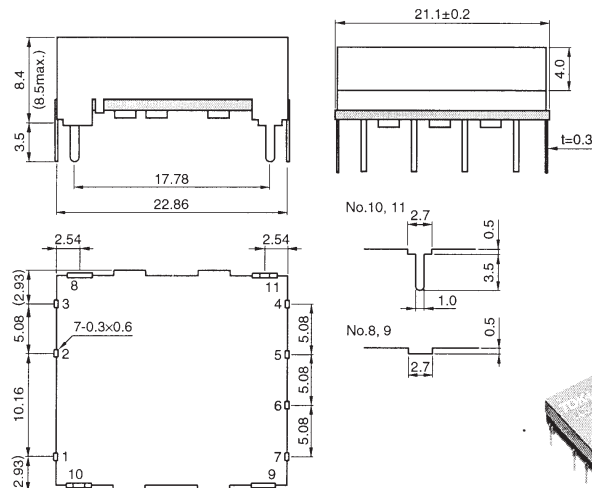


Dimensions in mm
Tolerance: ±0.5

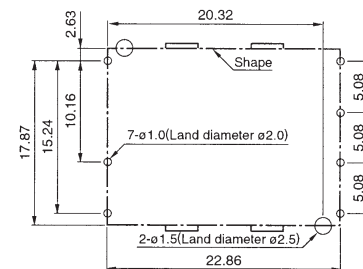


CC6 Type

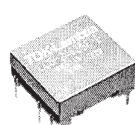
SHAPES AND DIMENSIONS
CC6-□□□□□F-E (DIP TYPE)



RECOMMENDED PWB HOLE SIZE, LOCATION
[TOP VIEW]



Dimensions in mm
Tolerance: ±0.5

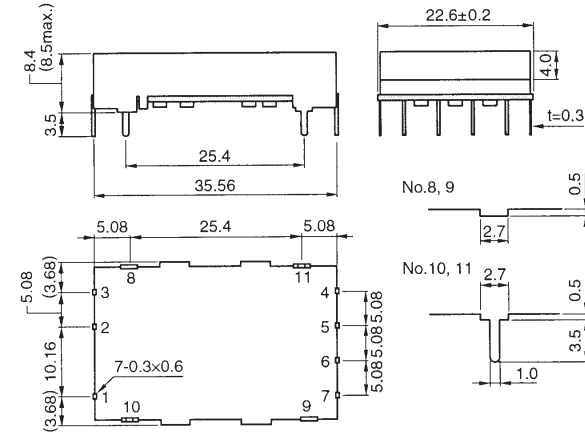


CC SERIES

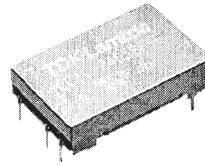
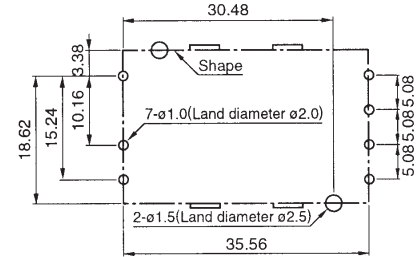
AC/DC Single & Dual Output: 1.5 - 25 Watts

CC10 Type

SHAPES AND DIMENSIONS
CC10-□□□□F-E (DIP TYPE)



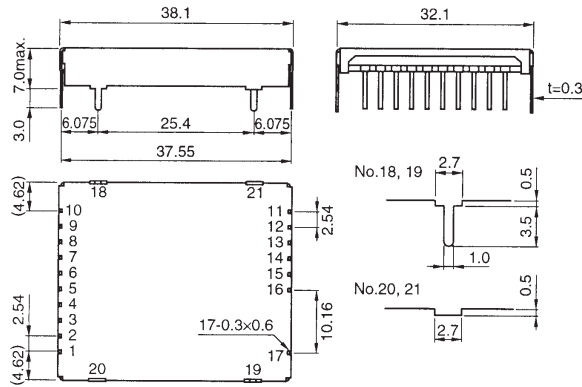
RECOMMENDED PWB HOLE SIZE, LOCATION
[TOP VIEW]



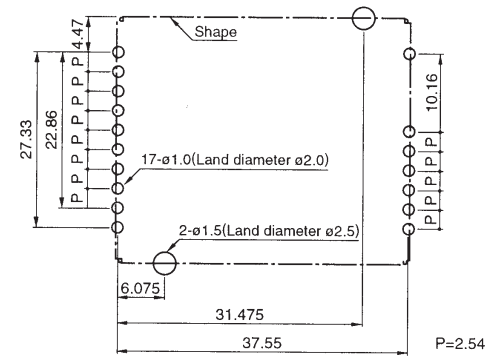
Dimensions in mm
Tolerance: ±0.5

CC15 Type

SHAPES AND DIMENSIONS
CC15-□□□□SF-E (DIP TYPE)



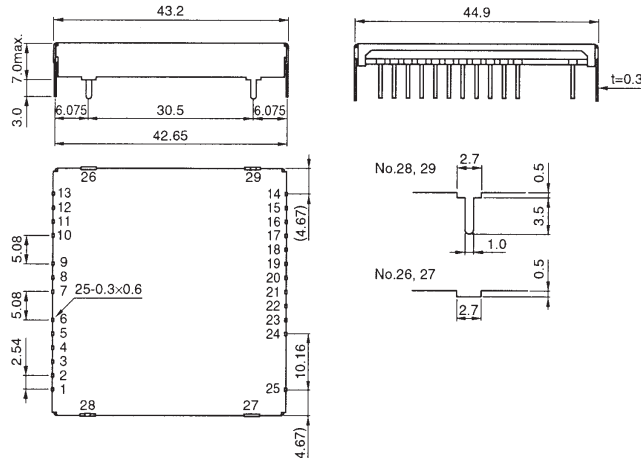
RECOMMENDED PWB HOLE SIZE, LOCATION
[TOP VIEW]



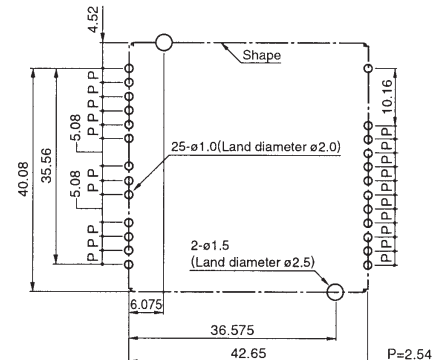
Dimensions in mm
Tolerance: ±0.5

CC25 Type

SHAPES AND DIMENSIONS
CC25-□□□□SF-E (DIP TYPE)



RECOMMENDED PWB HOLE SIZE, LOCATION
[TOP VIEW]



Dimensions in mm
Tolerance: ±0.5