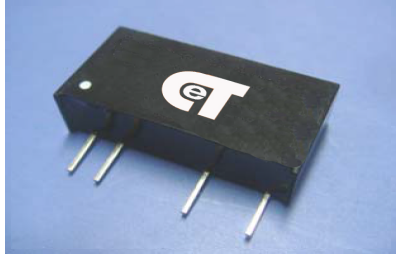


## CT-12D-3W SERIES

### 3000Vdc Isolation Single Output 3 Watt Dc-Dc Converter



#### FEATURES:

- 7PIN SIP Package
- Typical efficiency from 83%
- Unregulated Output Types
- Internal SMD Construction
- No External Component Required ● Industry Standard Pinout
- Operating Temperature: -40°C TO +85°C



Specifications typical at TA=25°C, nominal input voltage and rated output current unless otherwise specified

| Part Number   | Output Voltage | Output Current | Efficiency |
|---------------|----------------|----------------|------------|
|               | Vdc            | mA             | %TYP       |
| CT-05S05N3WNL | 5              | 600            | 82         |
| CT-05S09N3WNL | 9              | 333            | 85         |
| CT-05S12N3WNL | 12             | 250            | 82         |
| CT-05S15N3WNL | 15             | 200            | 85         |
| CT-12S05N3WNL | 5              | 600            | 82         |
| CT-12S09N3WNL | 9              | 333            | 85         |
| CT-12S12N3WNL | 12             | 250            | 86         |
| CT-12S15N3WNL | 15             | 200            | 87         |

#### Input Specifications

| Parameters        | Conditions | Min | Typ | Max | Units |
|-------------------|------------|-----|-----|-----|-------|
| Voltage Tolerance | Vo, Io Nom |     |     | ±10 | %     |
| Filter            | Capacitor  |     |     |     |       |

#### Output Specifications

| Parameters                      | Conditions           | Min | Typ | Max   | Units |
|---------------------------------|----------------------|-----|-----|-------|-------|
| Voltage Tolerance               | 100% full load       |     |     | ±5    | %     |
| Short Circuit Protection        | Short Term           |     |     | 1 Sec |       |
| Line Regulation                 | For 1.0% OF Vin      |     | 1.2 |       | %     |
| Load Regulation                 | 10% To 100% F.L      |     |     | 10    | %     |
| Ripple & Noise                  | BW=DC To 20MHz       |     |     | 100   | mVp-p |
| Transient response setting time | 50% load step change |     | 350 |       | us    |

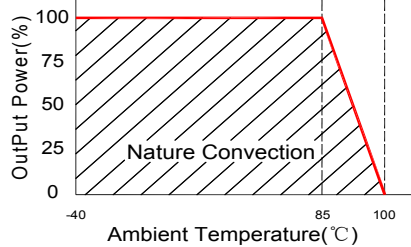
#### General Specifications

| Parameters            | Conditions               | Min     | Typ           | Max | Units |
|-----------------------|--------------------------|---------|---------------|-----|-------|
| Isolation Resistance  | 500Vdc                   | 1000    |               |     | MΩ    |
| Switching Frequency   | Full load, nominal input |         | 60            |     | KHz   |
| Operation Temperature |                          | -40     |               | +85 | °C    |
| Humidity              | Non Condensing           |         |               | 95  | %     |
| Cooling               | Free air Convection      |         |               |     |       |
| Case material         | DAP                      |         |               |     |       |
| MTBF                  | MIL-HDBK-217F@25°C       | 3500000 |               |     | Hours |
| Weight                |                          |         | 2.7           |     | g     |
| Dimensions            |                          |         | 19.5x7.1x10.0 |     | mm    |

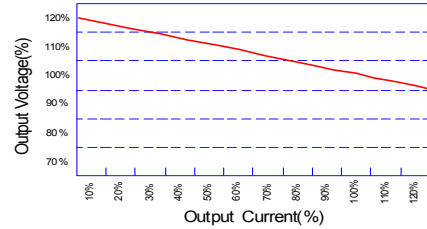
## CT-12D-3W SERIES

### 3000Vdc Isolation Single Output 3 Watt Dc-Dc Converter

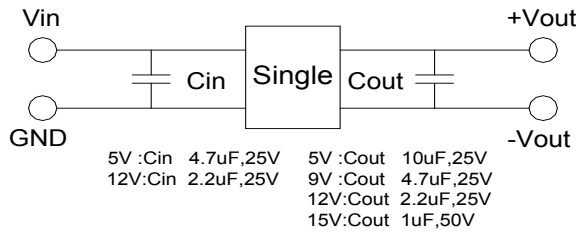
#### Temperature Derating Graph



#### Tolerance Envelope Graph



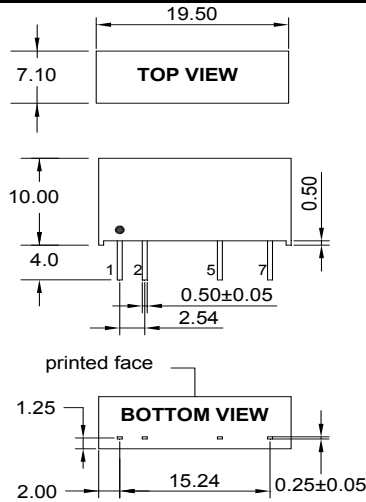
#### Recommended Test Circuit



#### Part Number

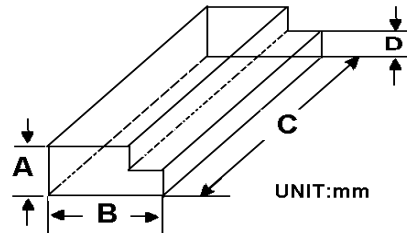
12D - 05 S 05 N 3W NL  
 A B C D E F G  
 A:Series  
 B:Input Voltage  
 C:Single(S)  
 D:Output Voltage  
 E:Unregulated(N)  
 F:Output Power  
 G:RoHS Version

#### Markings and dimensions



UNIT:mm Unless otherwise specified,all tolerances are ±0.25

#### Packaging



| Size(mm) |       |     |      |
|----------|-------|-----|------|
| A        | B     | C   | D    |
| 9.50     | 16.50 | 522 | 5.00 |

#### PIN Connection

| PIN    | 1    | 2    | 5     | 7     |
|--------|------|------|-------|-------|
| Single | +Vin | -Vin | -Vout | +Vout |