



3 Watt 5PIN PACKAGE Dc-Dc Converter



FEATURES:

- UP TO 3 WATT OUTPUT POWER
- 500Vdc ISOLATION
- PI INPUT FILTER.
- LOW RIPPLE AND NOISE.
- REGULATED OUTPUT TYPES.
- MTBF:>1,500,000 hrs
- 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 | Input Voltage | Output Voltage | Output Current | Efficiency |
|--------------|---------------|----------------|----------------|------------|
| | Vdc | Vdc | mA | %TYP |
| 70D-05S05RNL | 5 | 5 | 600 | 60 |
| 70D-05S12RNL | 5 | 12 | 250 | 65 |
| 70D-05D12RNL | 5 | ±12 | ±125 | 65 |
| 70D-12S12RNL | 12 | 12 | 250 | 65 |
| 70D-12S15RNL | 12 | 15 | 200 | 65 |
| 70D-12D15RNL | 12 | ±15 | ±100 | 65 |
| 70D-24S05RNL | 24 | 5 | 600 | 60 |
| 70D-24D12RNL | 24 | ±12 | ±125 | 65 |
| 70D-24D15RNL | 24 | ±15 | ±100 | 65 |
| 70D-48S12RNL | 48 | 12 | 250 | 65 |
| 70D-48D12RNL | 48 | ±12 | ±125 | 65 |
| 70D-48D15RNL | 48 | ±15 | ±100 | 65 |

Input Specifications

| Parameters | Conditions | Min | Typ | Max | Units |
|---------------|------------|-----|-----|-----|-------|
| Voltage Types | | | | ±10 | % |
| Filter | Capacitor | | | | |

Output Specifications

| Parameters | Conditions | Min | Typ | Max | Units |
|---------------------------------|-------------------------------|-----|------|------|-------|
| Voltage Tolerance | | | | ±5 | % |
| Short Circuit Protection | Continuous | | | | |
| Line Regulation | Regulated | | | ±0.3 | % |
| Load Regulation | Regulated | | | ±0.5 | % |
| Ripple & Noise | BW=DC To 20MHz | | | 50 | mVp-p |
| Line Regulation | Unregulated (For 1% of Vin) | | ±1.2 | | % |
| Load Regulation | Unregulated (20% To 100% F.L) | | | ±10 | % |
| Transient response setting time | 50% load step change | | 350 | | us |

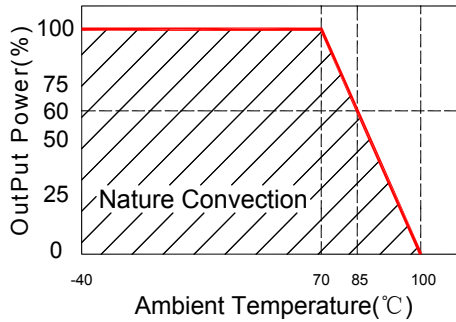
General Specifications

| Parameters | Conditions | Min | Typ | Max | Units |
|-----------------------|---------------------|------|----------------|-----|-------|
| Isolation Resistance | 500Vdc | 1000 | | | MΩ |
| Switingfrequency | | | 20 | | KHz |
| Operating Temperature | | -40 | | 85 | °C |
| Humidity | Non Condensing | | | 95 | % |
| Cooling | Free air Convection | | | | |
| Case material | DAP | | | | |
| Weight | | | 55 | | g |
| Dimensions | | | 33.0x33.0x10.1 | | mm |

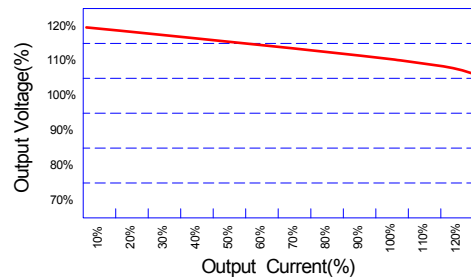


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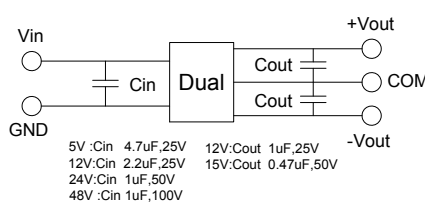
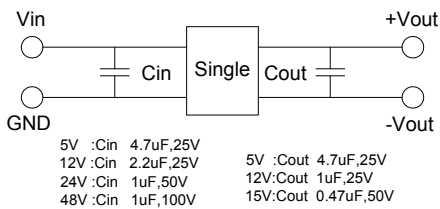
Temperature Derating Graph



Tolerance Envelope Graph



Recommended Test Circuit



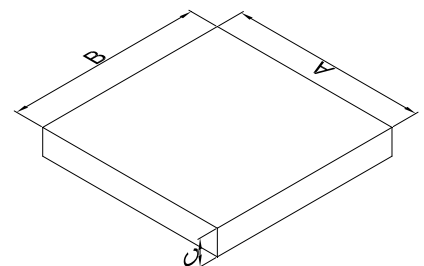
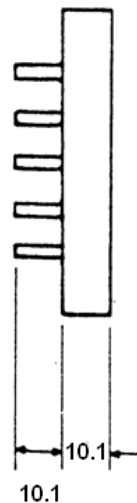
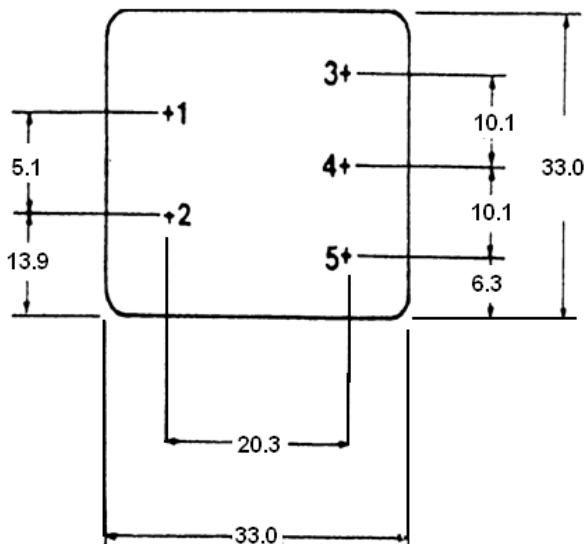
Part Number

70D - 05 S 05 R NL

A B C D E F

- A:Series
- B:Input Voltage
- C:Single(S)Dual(D)
- D:Output Voltage
- E:Regulated(R)
- F:RoHS Version

Markings and dimensions



| Size(mm) | | |
|----------|--------|-------|
| A | B | C |
| 210.00 | 210.00 | 30.00 |

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

PIN Connection

| PIN | 1 | 2 | 3 | 4 | 5 |
|--------|------|------|--------|-------|-------|
| SINGLE | +Vin | -Vin | NO PIN | +Vout | -Vout |
| DUAL | +Vin | -Vin | +Vout | COM | -Vout |