



DESCRIPTION: 2W 3KVDC Isolation Regulated Single Output DC/DC Converters

PPB Series are specially designed for 3KVDC isolation & regulated single output application, the input voltage range within $\pm 5\%$, regulated output with very low ripple noise.

FEATURES

| | | |
|-------------------------|-------------------------------------|---------------------------------------|
| SIP package | 3KVDC isolation | Operating temperature: -40°C to 105°C |
| Regulated single output | Continuous short circuit protection | RoHS compliance, CE certification |

SELECTION GUIDE

| Part Number | Input | | Output | | | Efficiency (%) |
|-------------|---------------|-------------|---------------|--------------|-----|----------------|
| | Voltage (VDC) | | Voltage (VDC) | Current (mA) | | |
| | Nominal | Range | | Max | Min | |
| PPB0505S | 5 | 4.75-5.25 | 5 | 400 | 40 | 70 |
| PPB0512S | 5 | 4.75-5.25 | 12 | 150 | 15 | 71 |
| PPB1205S | 12 | 11.40-12.60 | 5 | 400 | 40 | 70 |
| PPB1215S | 12 | 11.40-12.60 | 15 | 133 | 13 | 72 |
| PPB1505S | 15 | 14.25-15.75 | 5 | 400 | 40 | 71 |
| PPB2405S | 24 | 22.8-25.2 | 5 | 400 | 40 | 71 |
| PPB2415S | 24 | 22.8-25.2 | 15 | 133 | 13 | 74 |

Add suffix "P" for continuous short circuit protection, for example PPB0505SP.

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

COMMON SPECIFICATIONS

| Parameter | Conditions | Min. | Typ. | Max. | Units |
|--------------------------|---|------------------|------|------|---------|
| Storage humidity | | | | 95 | % |
| Operating temperature | Derating if the temperature $\geq 85^\circ\text{C}$ | -40 | | 105 | °C |
| Storage temperature | | -55 | | 125 | °C |
| Temp. rise at full load | | | 40 | 58 | °C |
| Lead temperature | 1.5mm from case for 10 seconds | | | 300 | °C |
| Short circuit protection | | Continuous | | | |
| Cooling | | air convection | | | |
| Case material | | Plastic(UL94-V0) | | | |
| MTBF | | 3500 | | | K hours |
| Weight | | | 2.8 | | g |

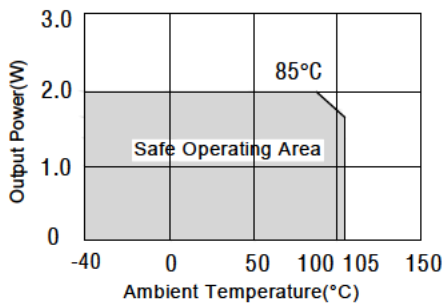
OUTPUT SPECIFICATIONS

| Parameter | Conditions | Min. | Typ. | Max. | Units |
|-------------------------|--|------|------|-----------|-------|
| Output power | | 0.2 | | 2 | W |
| Line regulation | High VIN to low VIN (voltage variation $\pm 5\%$) | | | ± 0.5 | % |
| Load regulation | 10% to 100% load | | | ± 1.5 | % |
| Output voltage accuracy | 100% full load | | | ± 3 | % |
| Temperature drift | 100% full load | | | 0.03 | %/°C |
| Ripple | 20MHz Bandwidth | | 20 | 30 | mVp-p |
| Noise | 20MHz Bandwidth | | 50 | 150 | mVp-p |

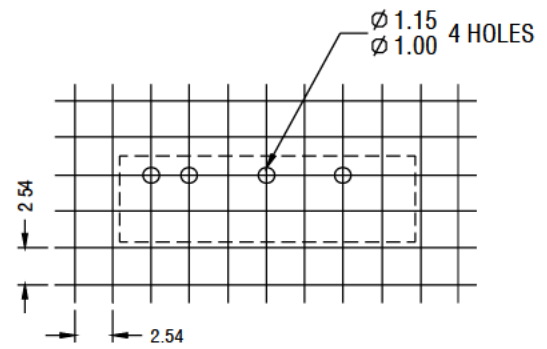
ISOLATION CHARACTERISTICS

| Parameter | Conditions | Min. | Typ. | Max. | Units |
|----------------------|---------------------------------|------|------|------|-------|
| Isolation voltage | Tested for 1 minute and 1mA max | 3000 | | | VDC |
| Isolation resistance | Test at 1000VDC | 1 | | | GΩ |

TEMPERATURE DERATING GRAPHS



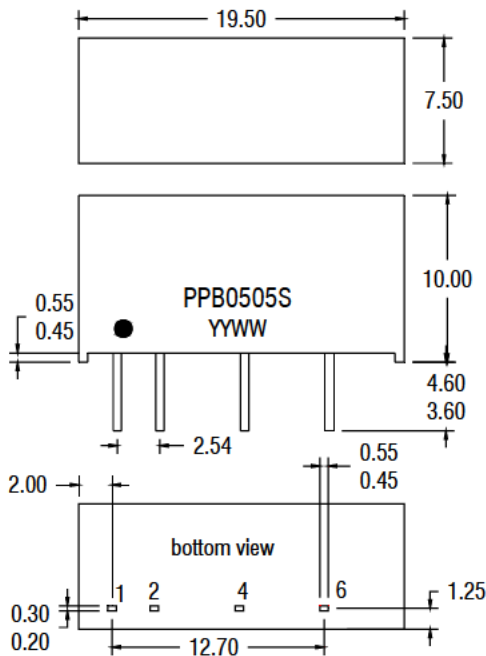
RECOMMENDED FOOTPRINT DETAILS



All dimensions in mm ± 0.25 . All pins on a 2.54mm pitch.

MECHANICAL DIMENSIONS

SIP Package



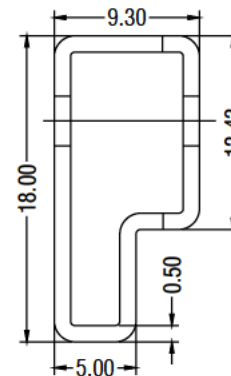
All dimensions in mm ± 0.025 . All pins on a 2.54mm pitch.

Weight: 2.8g

PIN CONNECTIONS

| 7 PIN SIP | |
|-----------|----------|
| Pin | Function |
| 1 | +Vin |
| 2 | -Vin |
| 4 | -Vout |
| 6 | +Vout |

TUBE OUTLINE DIMENSIONS



All dimensions in mm ± 0.25 mm Tube Quantity : 25PCS

APPLICATION NOTE

Requirement on output load

To ensure this module can operate efficiently and reliably, During operation, the minimum output load could not be less than 10% of the full load. If the actual output power is very small, please connect a resistor with proper resistance at the output end in parallel to increase the load, or use our company' s products with a lower rated output power.