TMP Thermal Pad Accessory

FEATURES

- –60° to +180°C temperature rating
- Provides thermal transfer for Interpoint converters
- 0.2°C in²/W (129°C mm²/W) thermal resistance
- 4000 Vac breakdown voltage typical

MODEL NUMBER	CONVERTER SERIES
TMP-001	MFL, MFLHP, MHP, MOR
TMP-002	MWR, MTR Triple, MHV Triple, MTO, MTW, MRH, MHL, HR300
TMP-003	MTR Single and Dual, MHV Single and Dual, MHD, MHE, MLP
TMP-005	MPE, MHF+
TMP-007	MOR



For details, refer to Figures 1 through 5 on the following page.

DESCRIPTION

Our accessory Thermal Mounting Pads (TMP) provide a simple and effective method of ensuring a low thermal resistance path between a DC/DC converter and its mounting plane. When placed between the converter and circuit board or heat sink, it will provide electrical isolation, fill small surface irregularities, and produce a 0.20° C in²/W (129°C mm²/W) thermal resistance path.

MATERIAL

The Thermal Mounting Pads, made of silicon rubber and fiberglass, are thermally stable and non-flammable. They are non-toxic, do not require grease and do not exhibit the cracking problems of ceramic materials. The pads may temporarily react to some cleaning agents (notably chlorinated hydrocarbons) by swelling, but are not damaged after the solvent is removed. They will tolerate soldering process temperatures.

MOUNTING

For maximum thermal conduction from the converter through the thermal pad to the thermal plane, a mounting pressure of 300-600 lbs/in² is recommended. To achieve this level of mounting pressure, we recommend using our flanged models. The formula to calculate the recommended pressure is $P=(T^*N)/(0.2^*D^*A)$; where P=pressure in PSI, T=torque, N=number of fasteners, D=fastener diameter (in inches), A=contact surface area (in square inches).

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FIGURE 3: TMP-007

CHARACTERISTIC	TYPICAL VALUE
	Unless otherwise noted
Color	Green
Thermal Resistance, °C in ² /W	0.20 (129°C mm ² /W)
Dielectric Constant	4.00
Continuous Use Temperature °C	-60 to +180 ¹
Thermal Conductivity (W/meter – °K)	2.00
Thickness	0.010 ±0.001 inches (0.25 ±0.025 mm)
Breakdown Voltage (per ASTM D149)	4000 min. Vac (400 Vac per mil)

FIGURE 4: TMP-003



Notes:

1. Converter or filter being used with thermal pad must not exceed its maximum case temperature.

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