

TOTAL POWER INT'L

ON-BOARD DC-DC CONVERTER ENCAPSULATED MODULES

9 WATTS SINGLE & DUAL OUTPUT TPDM09-S & TPDM09-D SERIES



FEATURES:

- **LOW COST SINGLE & DUAL OUTPUT.**
- **2:1 INPUT RANGE.**
- **9W ISOLATED OUTPUT.**
- **SIX-SIDED METAL SHIELD.**

SPECIFICATION

INPUT SPECIFICATION

Input Range: 2:1 DC input range.

See Ratings Chart.

Input Voltage: Nominal 12/24/48 Vdc.

Input Current: Various with input range & load.

See Ratings Chart.

Input Fuse: Use external fuse.

Input Filter: Pi-Network.

Isolation Resistance: 1,000 Mega Ohms.

Isolation Voltage: 1,500Vdc.

EMI: Six-sided metal shielding.

OUTPUT SPECIFICATION

Output Voltage: See Ratings Chart.

Output Current: See Ratings Chart.

Voltage Accuracy: Main O/P $\pm 2.0\%$ typ.

Line Regulation: $\pm 0.5\%$ typ.

Load Regulation: Single O/P $\pm 1.0\%$ typ.

Dual O/P $\pm 2.0\%$ typ.

Noise & Ripple: Typ. 100mV for 3.3V/5.0V & 1.0% for others peak to peak.

OVP: Built-in on main output.

Adjustability: Not available.

Short Circuit Protection: Power fold back, Self-recovering.

Overload Protection: About 130% of overrange by foldback type.

GENERAL SPECIFICATION

Efficiency: Typ. 65-75%, various with input.

Switching Frequency: 40-70K Hz., various with input and loading condition.

Circuit Topology: Free Running Flyback Circuit.

Transient Response: Full to 1/2 load $< 200 \mu\text{Sec.}$

Case: Black coated steel with non-conductive metal base.

Weight: 62.5g (2.2 Oz.)

Power Density: 5.6Watts./ Cubic inch.

Operating Temperature: -25°C to +71°C range.

-20°C to +60°C @ full load without derating.

Temperature: -40°C to +105°C.

Temperature Coefficient: 0.02% /°C.

Cooling: Convection cooling up to +60°C @ full load.

At least 100LFM moving air is recommended for F-L > +60°C in a confined area.

Humidity: Up to 95%RH, Non-condensing.

Commercial Grade only.

NOTE: (1) All measurements are at nominal input, full load, and +25°C unless otherwise specified.

(2) Line Regulation measured from High to Low Lines at full load.

(3) Load Regulation measured from Full Load to 1/2 Full Load at nominal input.

(4) Correct fuse size by calculating the max. DC current drain at low Line input & Load and then adding 20-25% for the desired fuse size.

