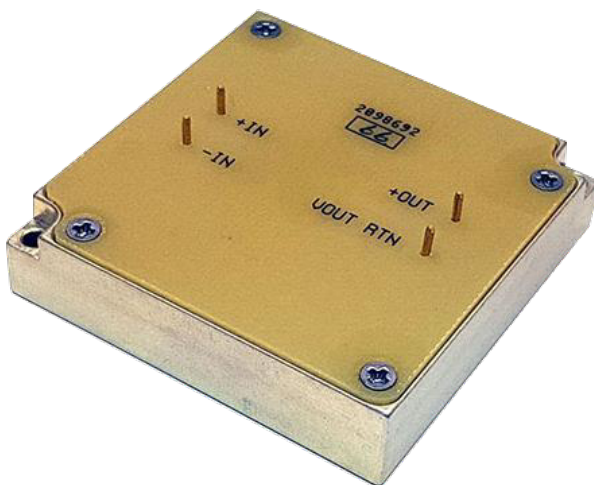


M785 SERIES

DC/DC POWER SUPPLY



PRODUCT HIGHLIGHTS

- **MINIATURE**
- **HIGH DENSITY**
- **SINGLE OUTPUT**
- **DC/DC POWER SUPPLY**
- **UP TO 25 W**

APPLICATIONS

Military, Ruggedized, Telecom, Industrial

SPECIAL FEATURES

- Miniature size
- High efficiency
- Wide input range
- Input / Output isolation
- Fixed switching frequency (250 KHz)
- EMI/RFI filters included
- Indefinite short circuit protection with auto-recovery
- Input over-voltage shutdown with auto-recovery (optional)
- Over temperature shutdown with auto-recovery

ENVIRONMENTAL

Meets or exceeds MIL-STD-810D

Temperature:

Operating -55°C to $+85^{\circ}\text{C}$ (baseplate)

Storage -55°C to $+125^{\circ}\text{C}$

RELIABILITY

273,000 hours, calculated per

MIL-STD-217F at $+85^{\circ}\text{C}$ baseplate, AUF.

1,200,000 hours, calculated per

MIL-STD-217F at $+85^{\circ}\text{C}$ baseplate, GF.

* Specifications are subject to change without prior notice by the manufacturer

ELECTRICAL SPECIFICATIONS

DC INPUT

DC Input range: 18 to 36 VDC

Input transient protection:

All models meet or exceed (no damage)

MIL-STD-1275A (100V for 50 mSec) and

MIL-STD-704A, MIL-STD-704D (80V for 0.1 Sec)
(for 600V Spike – a serial resistor is required)

Over-voltage shutdown with auto-recovery (optional)

Efficiency: 75%, Typical

EMI/RFI:

Designed to meet MIL-STD-461C - CS01, CS02,
CE03, RS02 & RS03, MIL-STD-461D - CE102-16

Isolation:

200V between Input and Output

200V between Input and Case

DC OUTPUT (floating)

Line/Load regulation:

Less than $\pm 2\%$ (no load to full load, -55°C to $+85^{\circ}\text{C}$)

Ripple and Noise: 50mVp-p, typical (max. 1%)

Current limiting:

Continuous protection for unlimited time

Over voltage protection:

Passive transistor on output.

Over temperature protection:

Shutdown at baseplate temperature of $+100^{\circ}\text{C}$ ($\pm 5^{\circ}\text{C}$)

Automatic recovery at baseplate temperature
lower than $+90^{\circ}\text{C}$ ($\pm 5^{\circ}\text{C}$)

Isolation:

200V between Output and Input

200V between Output and Case

M785 SERIES DC/DC POWER SUPPLY

SELECTION GUIDE

Model	Input	Output
M785-1	18 to 36 VDC	5.0V / 1.0A
M785-7	18 to 36 VDC	16.5V / 0.5A
M785-8-2	13.5 to 22 VDC	2.1V / 4.5A
M785-9	13.5 to 22 VDC	5.1V / 2.7A
M785-10	13.5 to 22 VDC	15V / 1.5A
M785-11	18 to 36 VDC	5.0V / 2.0A

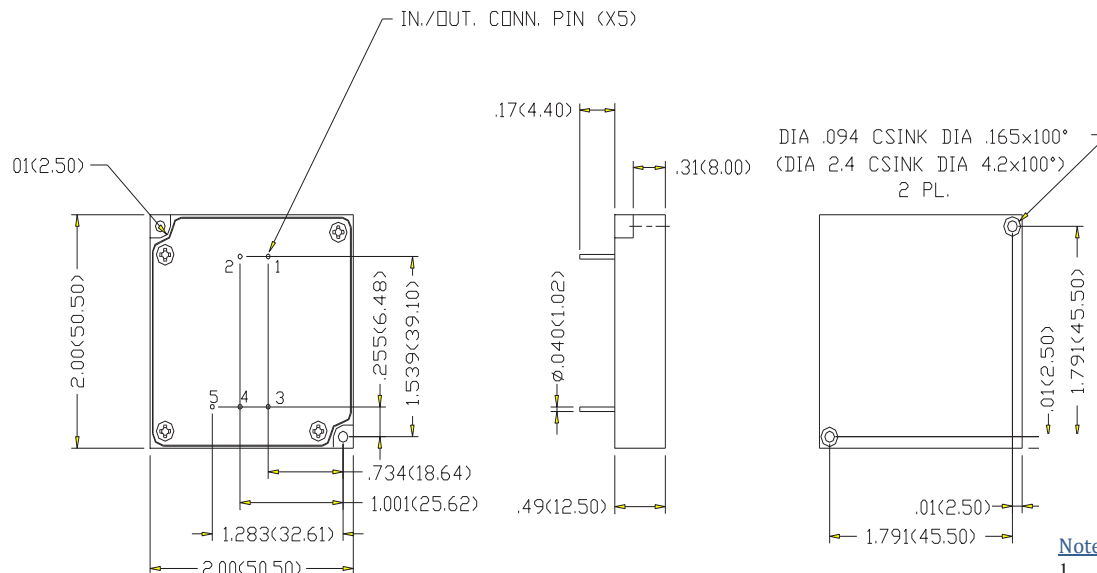
Note: other voltages and currents are available, consult factory.

PIN ASSIGNMENT

PIN No.	PIN Function
1	+ VIN
2	- VIN
3	+ OUT
4	RTN
5	N.C.

**MPS can customize this product
to your requirements - contact us!**

OUTLINE DRAWING



Notes

1. Dimensions are in Inches [mm]
2. Tolerance is:
 .XX ±.02 IN
 .XXX ±.01 IN
3. Weight: Approx. 1.8 Oz (51 gr.)

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