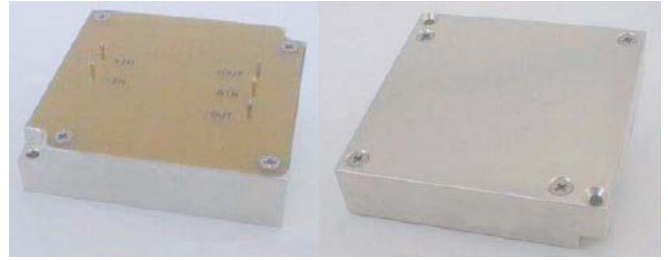


M786 SERIES

MINIATURE, HIGH DENSITY
SINGLE / DUAL OUTPUT
DC/DC CONVERTERS
(UP TO 30W)



APPLICATIONS

Military, Ruggedized, Telecom, Industrial

SPECIAL FEATURES

- Miniature size
- High efficiency
- Wide input range
- Input / Output isolation
- Fixed switching frequency (250KHz)
- 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°C (baseplate)

Storage -55°C to +125°C

RELIABILITY

273'000 hours, calculated per

MIL-STD-217F at +85°C baseplate, AUF.

1'200'000 hours, calculated per

MILK-STD-217F at +85°C baseplate, GF.

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

ELECTRICAL SPECIFICATIONS

DC INPUT

DC input range: 16 to 36 VDC

Input transient protection:

All models meet or exceed (no damage)
MIL-STD-1275A (100V for 50mSec) and
MIL-STD-704A, MIL-STD-704D (80V for 0.1Sec)
(for 600V Spike – a serial resistor is required)

Overvoltage shutdown with auto-recovery (optional)

Efficiency: 75%, Typical

EMI/RFI:

Design to meet or exceed
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°C)

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

Current limiting:

Continuous protection for unlimited time.

Over voltage protection:

Passive transzorb on output.

Over temperature protection:

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

Automatic recovery at baseplate temperature

lower than +90°C ($\pm 5^\circ\text{C}$)

Isolation:

200V between Output and Input

200V between Output and Case

SELECTION GUIDE

Model	Input	Output #1	Output #2
M786-16	16 to 36VDC	5V / 2A	3.3V / 1A
M786-17	16 to 36VDC	5V / 2A	3.3V / 2A
M786-18	18 to 36VDC	5V / 1A	3.3V / 2A
M786-19	16 to 45VDC	5V / 2A	3.3V / 3A
M786-20	18 to 36VDC	15V / 1.6A	15V / 0.4A

PIN ASSIGNMENT

Option 1

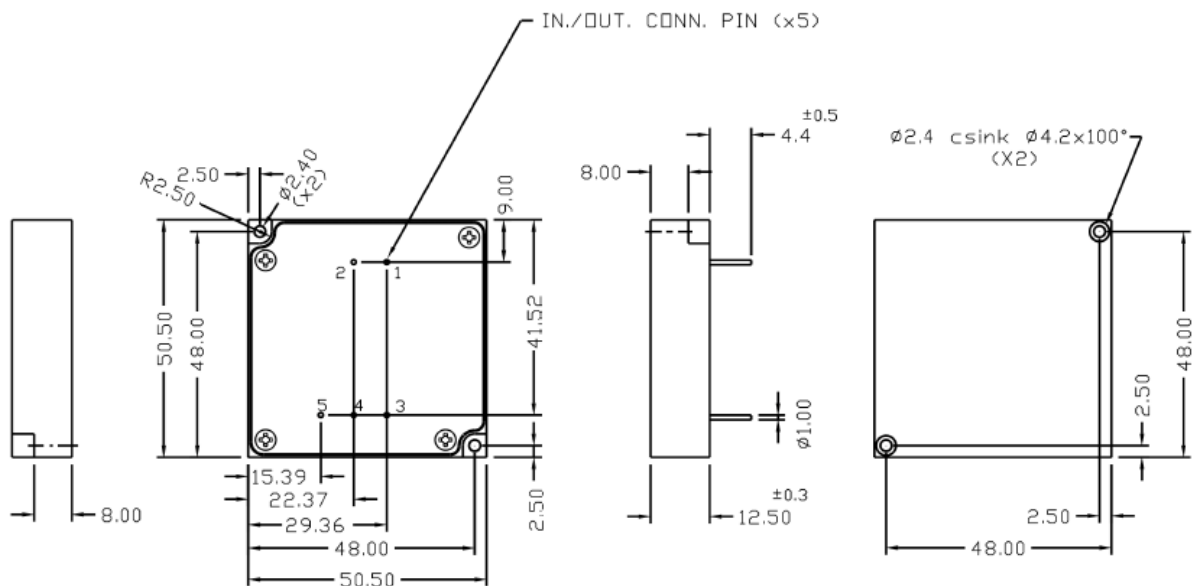
Pin No.	Pin Function
1	+ VIN
2	- VIN
3	+ OUT1 1
4	RTN
5	+ OUT 2

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

Option 2

Pin No.	Pin Function
1	+ VIN
2	- VIN
3	+ OUT 1
4	RTN
5	- OUT 2

OUTLINE DRAWING



Notes

1. Dimensions are in mm
2. Tolerance is:
.XX ±.02 IN
.XXX ±.01 IN
3. Weight: Approx. 2 Oz (60 gr.)

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