



M7878 SERIES

**MINIATURE, HIGH DENSITY,
DUAL / SINGLE OUTPUT,
DC/DC CONVERTERS
(UP TO 6W)**

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
- 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

150,000 hours, calculated per MIL-STD-217F at $+85^{\circ}\text{C}$ baseplate, ground fixed.

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



ELECTRICAL SPECIFICATIONS

DC INPUT

DC Input range: 16 to 36 VDC
(can operate down to 9V during input transient)

Input transient protection:

All models meet or exceed (no damage)
Spikes for 100V per MIL-STD-704A

Over-voltage shutdown with auto-recovery
(shut down above 70 VDC)

Efficiency: 62%, Typical (up to 85%)

EMI/RFI:

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

Isolation:

100V between Input and Outputs

100V between Input and Case

DC OUTPUT (floating)

Line/Load regulation:

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

Ripple and Noise: 30mVp-p, typical (max. 1%)

Current limiting (Foldback):

Continuous protection for unlimited time

Over voltage protection:

Passive tranzorb on output.

Over temperature protection:

Automatic Thermal Shutdown with
Automatic recovery for each output.

Isolation:

100V between Outputs and Input

100V between Output and Case

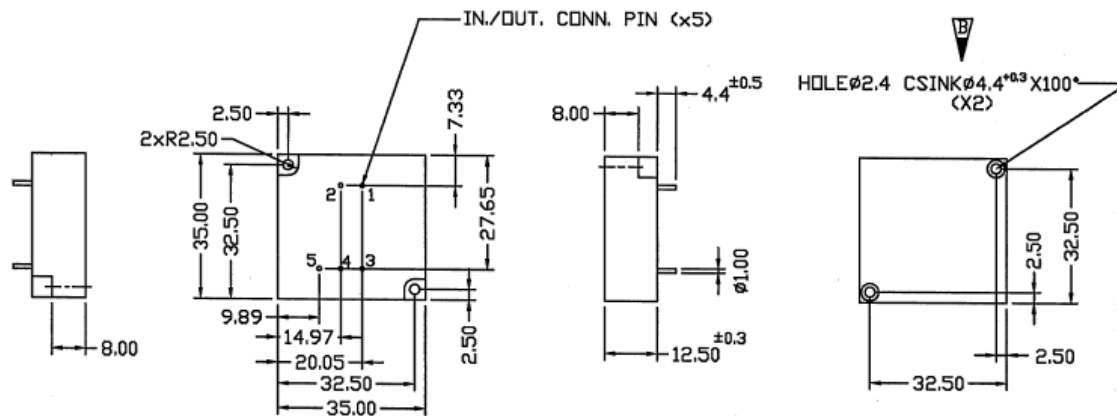


PIN ASSIGNMENT

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

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

OUTLINE DRAWING



M7878 PINOUT

- 1 - +IN
- 2 - -IN
- 3 - +OUT
- 4 - RTN
- 5 - OUT

Notes

1. Dimensions are in mm
2. Tolerance is:
.XX ±0.2MM
.XXX ±0.1MM
3. Weight: Approx. 0.88 Oz (25 gr.)

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