

# M7874 SERIES

**MINIATURE, HIGH DENSITY,  
Quad OUTPUTS,  
DC/DC CONVERTERS  
(UP TO 80W)**

## **APPLICATIONS**

Military, Ruggedized, Telecom, Industrial

## **SPECIAL FEATURES**

- Extremely 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
- Inhibit (remote on / Off) TTL.
- Over-voltage protection -  
Passive tranzorbs on outputs
- Over temperature shutdown with auto-recovery

## **ENVIRONMENTAL**

Meets or exceeds MIL-STD-810D

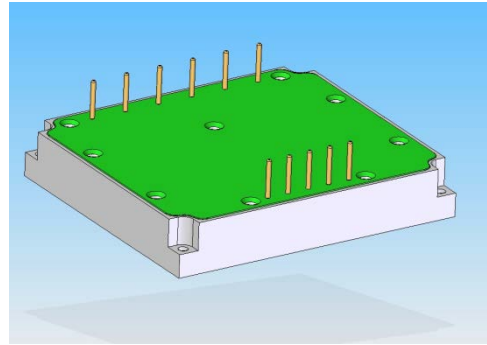
Temperature:

Operating  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$  (baseplate)

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

## **RELIABILITY**

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



## **ELECTRICAL SPECIFICATIONS**

### **DC INPUT**

DC Input range: 18-36 VDC

EMI, RFI Filters included

Efficiency: 75% (Typical)

Isolation:

50V between Input and Output

50V between Input and Case

### **DC OUTPUT (floating)**

Line/Load regulation:

Less than 1% (no load to full load,  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$ )

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

Current limiting (Hiccup):

Continuous protection for unlimited time

Over voltage protection:

Electronic shutdown with automatic recovery and a passive tranzorb on output.

Over temperature protection:

Shutdown at baseplate temperature of  $+105^{\circ}\text{C}$  ( $\pm 5^{\circ}\text{C}$ )

Automatic recovery at baseplate temperature

lower than  $+95^{\circ}\text{C}$  ( $\pm 5^{\circ}\text{C}$ )

Isolation:

50V between Output and Input

50V between Output and Case

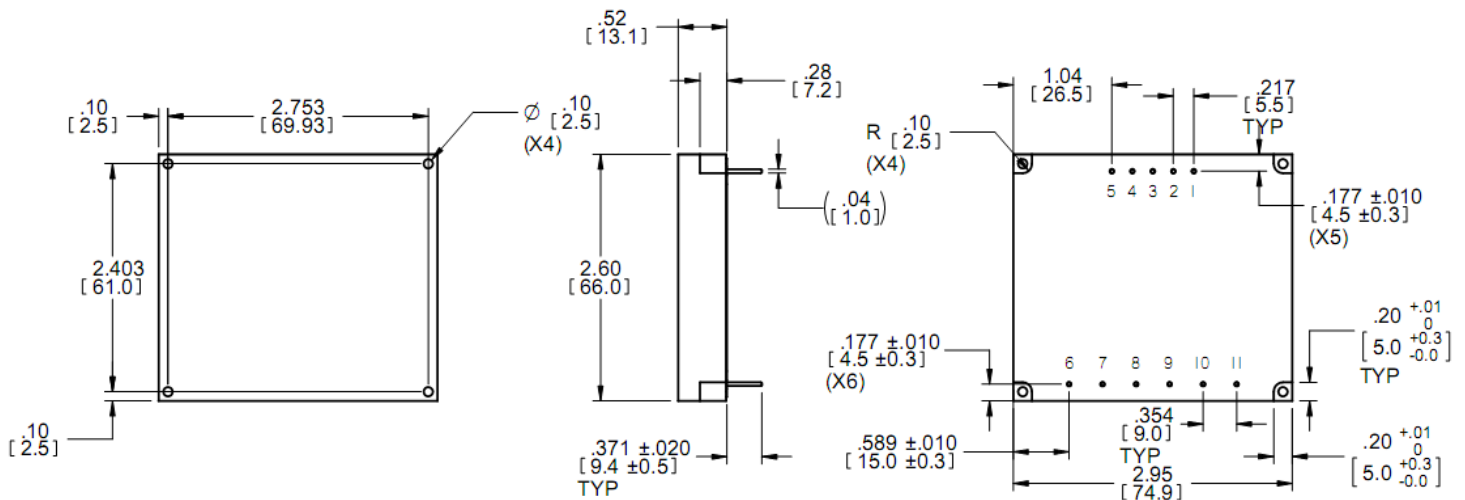
## PIN ASSIGNMENT

PIN No.	PIN Function
1	VIN
2	VIN RTN
3	SYN
4	SIGNAL RTN
5	INHIBIT
6	VOUT 1
7	VOUT 1 RTN
8	VOUT 4
9	VOUT 2, 3, 4 RTN
10	VOUT 3
11	VOUT 2

MPS can customize this product to your Requirements – contact us!

\*SIGNAL RTN Refers to VIN RTN.

## OUTLINE DRAWING



### Notes

1. Dimensions are in Inches [mm ]
2. Tolerance is:  
.XX ±0.2IN  
.XXX ±0.1IN
3. Weight: Approx. 100 gr (3.52oz)

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