

# 37.5 to 75 Watt 2.28x2.40 Inch Package M + R

## 4:1 Input Range

- o Efficiency to 84%
- o 300 kHz Switching Frequency
- o 4:1 Input Range
- o Regulated Single Output
- o Continuous Short Circuit Protection
- o Half Brick Size Meet Industrial Standard

| MODEL NUMBER  | INPUT VOLTAGE | OUTPUT VOLTAGE | OUTPUT CURRENT | INPUT CURRENT |           | %EFF |
|---------------|---------------|----------------|----------------|---------------|-----------|------|
|               |               |                |                | NO LOAD       | FULL LOAD |      |
| 75MRS48X3.3LC | 18-75 VDC     | 3.3 VDC        | 15 A           | 50 mA         | 1320 mA   | 78   |
| 75MRS48X5LC   |               | 5 VDC          | 15 A           |               | 1905 mA   | 82   |
| 75MRS48X12LC  |               | 12 VDC         | 6.25 A         |               | 1860 mA   | 84   |
| 75MRS48X15LC  |               | 15 VDC         | 5 A            |               | 1860 mA   | 84   |
| 75MRS48X24LC  |               | 24 VDC         | 3.12 A         |               | 1860 mA   | 84   |

**SPECIFICATIONS**

All Specifications Typical At Nominal Line, Full Load, and 25°C Unless Otherwise Noted

**INPUT SPECIFICATIONS**

|                                              |                   |  |         |
|----------------------------------------------|-------------------|--|---------|
| Input Voltage Range                          |                   |  | 4:1     |
| Undervoltage lockout                         | 48 Vin power up   |  | 17 V    |
|                                              | 48 Vin power down |  | 16 V    |
| Positive Logic Remote ON/OFF <sup>3+4)</sup> |                   |  |         |
| Input Filter                                 |                   |  | Pi Type |

**OUTPUT SPECIFICATIONS**

|                                              |                      |                                    |
|----------------------------------------------|----------------------|------------------------------------|
| Voltage Accuracy                             |                      | ±1% max.                           |
| Transient Response                           | 25% Step Load Change | <500μ sec.                         |
| External Trim Adj. Range                     |                      | ±10%                               |
| Ripple and Noise, 20 MHz BW                  | 3.3V, 5V             | 40 mV RMS max.<br>100 mV p-p max.  |
|                                              | 12V, 15V             | 60 mV RMS max.<br>150 mV p-p max.  |
|                                              | 24V                  | 100 mV RMS max.<br>240 mV p-p max. |
|                                              |                      |                                    |
| Temperature Coefficient                      |                      | ±0.03%/°C                          |
| Short Circuit Protection                     |                      | Continuous                         |
| Line Regulation <sup>1)</sup>                |                      | ±0.2% max.                         |
| Load Regulation <sup>2)</sup>                |                      | ±0.2% max.                         |
| Over Voltage Protection trip Range, % Vo nom |                      | 115-140%                           |
| Current Limit                                |                      | 110% ~ 160% Nominal Output         |

1) Measured from High Line to Low Line.

2) Measured from Full Load to Zero Load.

3) Logic Compatibility.....Open Collector Ref. to -Input.

Module ON.....Open Circuit

Module OFF.....&lt;0.8 VDC

4) Suffix "R" to the Model Number with Negative Logic Remote ON/OFF.

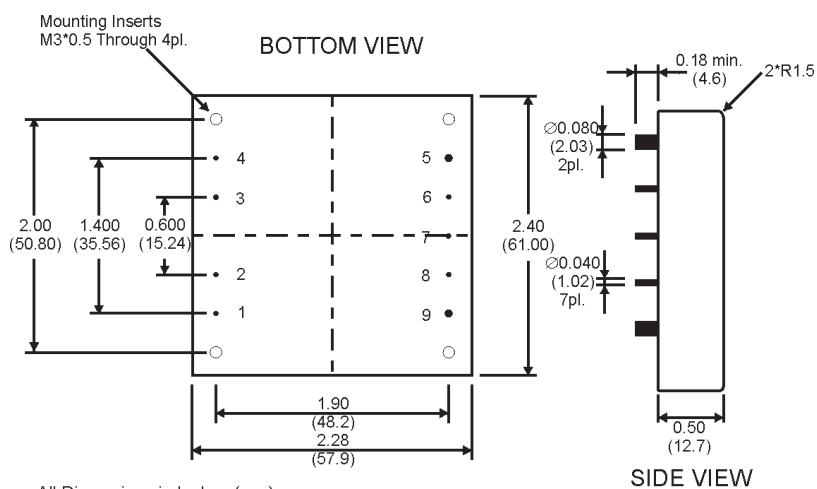
**GENERAL SPECIFICATION**

|                                       |                                           |               |
|---------------------------------------|-------------------------------------------|---------------|
| Efficiency                            | see table                                 |               |
| Isolation Voltage                     | Input / Output                            | 1500 VDC min. |
|                                       | Input / Case                              | 1500 VDC min. |
|                                       | Output / Case                             | 1500 VDC min. |
| Isolation Resistance                  | 10 MOhms min.                             |               |
| Switching Frequency                   | 300 kHz                                   |               |
| Recommended Reflow Soldering Pb-free* | see diagram                               |               |
| Operating Temperature Range           | -40°C to +100°C                           |               |
| Storage Temperature Range             | -55°C to +105°C                           |               |
| Thermal Shutdown, Case Temperature    | +100°C                                    |               |
| Dimensions                            | 2.28x2.40x0.50 Inches (57.9x61.0x12.7 mm) |               |
| Case Material                         | Aluminium                                 |               |

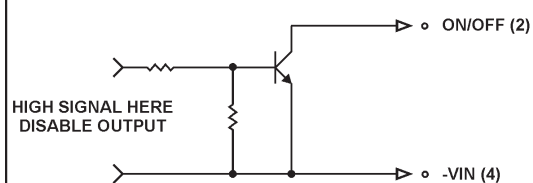
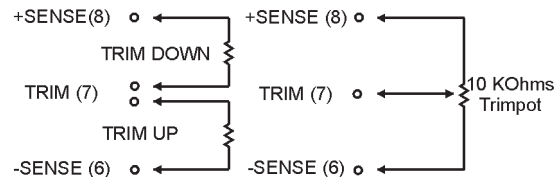
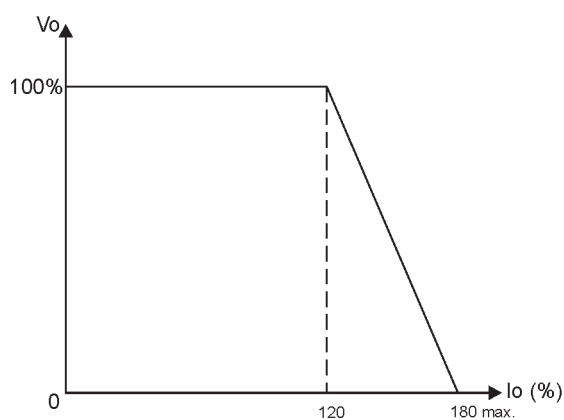
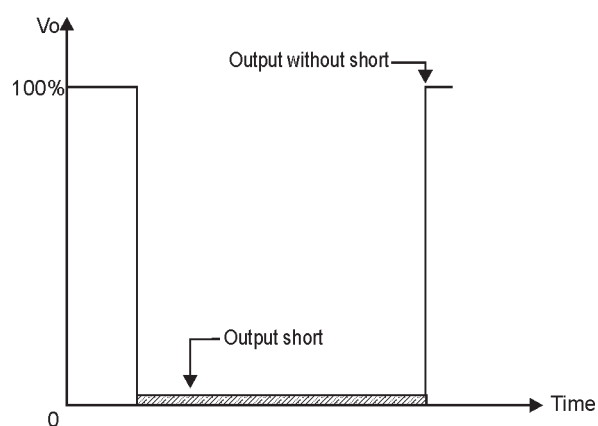
\*) We do not recommend vapor phase soldering!

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**MECHANICAL SPECIFICATIONS****Case "M"**

| PIN CONNECTIONS |                |
|-----------------|----------------|
| 1               | +INPUT         |
| 2               | REMOTE CONTROL |
| 3               | CASE           |
| 4               | -INPUT         |
| 5               | -OUTPUT        |
| 6               | -SENSE         |
| 7               | TRIM           |
| 8               | +SENSE         |
| 9               | +VOUT          |

**Remote On/Off Control****External Output Trimming****APPLICATION NOTE****Current Limit Curve****Output Short, Vo Characteristics****NOTICE:**

The information in this document has been carefully checked. However, no responsibility is assumed for inaccuracies! Specifications can be changed without notice. The latest and most complete information can be found on our website.