

66 to 100 Watt 2.28x2.40 Inch Package M 4:1 Input Range



- o Efficiency up to 88%
- o Wide Input Range
- o Regulated Single Output
- o Continuous Short Circuit Protection
- o Half Brick Size Meet Industrial Standard
- o Five-Sided Shield Metal Case



| MODEL NUMBER | INPUT VOLTAGE | OUTPUT VOLTAGE | OUTPUT CURRENT | INPUT CURRENT | | % EFF |
|----------------|---------------|----------------|----------------|---------------|-----------|-------|
| | | | | NO LOAD | FULL LOAD | |
| 100MRS24X3.3LC | 9-36 VDC | 3.3 VDC | 20 A | 35 mA | 3374 mA | 81.5 |
| 100MRS24X5LC | | 5 VDC | 20 A | | 4990 mA | 83.5 |
| 100MRS24X12LC | | 12 VDC | 8.3 A | | 4902 mA | 85 |
| 100MRS24X15LC | | 15 VDC | 6.7 A | | 4817 mA | 86.5 |
| 100MRS24X24LC | | 24 VDC | 4.17 A | | 4849 mA | 86 |
| 100MRS48X3.3LC | 18-75 VDC | 3.3 VDC | 20 A | 30 mA | 1708 mA | 80.5 |
| 100MRS48X5LC | | 5 VDC | 20 A | | 2422 mA | 86 |
| 100MRS48X12LC | | 12 VDC | 8.3 A | | 2408 mA | 86.5 |
| 100MRS48X15LC | | 15 VDC | 6.7 A | | 2381 mA | 87.5 |
| 100MRS48X24LC | | 24 VDC | 4.17 A | | 2367 mA | 88 |

SPECIFICATIONS

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

INPUT SPECIFICATIONS

| | | |
|---|--|---|
| Input Voltage Range | | 4:1 |
| Undervoltage lockout | 24 Vin power up | 8.8 V |
| | 24 Vin power down | 8 V |
| | 48 Vin power up | 17 V |
| | 48 Vin power down | 16 V |
| Positiv Logic Remote ON/OFF ⁴⁾ | Logic Compatibility Module ON Module OFF | Open Collector Ref. to -Input >3.5 VDC or Open Circuit <1.8 VDC |
| Input Filter | | Pi Type |

OUTPUT SPECIFICATIONS

| | | |
|---|----------------------|------------------------------------|
| Voltage Accuracy | | ±1.5% max. |
| Transient Response | 25% Step Load Change | <500µ sec. |
| External Trim Adj. Range | | ±10% |
| Ripple and Noise at 20 MHz BW ³⁾ | 3.3V, 5V | 40 mV RMS max. 100 mV p-p max. |
| | 12V, 15V | 60 mV RMS max. 150 mV p-p max. |
| | 24 V | 100 mV RMS max. 240 mV p-p max. |
| Temperature Coefficient | | ±0.03%/°C |
| Short Circuit Protection | | Continuous |
| Line Regulation ¹⁾ | | ±0.2% max. |
| Load Regulation ²⁾ | | ±0.2% max. |
| Over Voltage Protection trip Range, % Vo nom. | | 115-140% |
| Current Limit | | 110% ~ 140% Nominal Output |

NOTE:

1. Measured from High Line to Low Line.
2. Measured from Full Load to Zero Load.
3. Output Ripple & Noise measured with 10 µF tantalum and 1 µF ceramic capacitor across output.
4. Add Suffix "R" to the Module Number with Negative Logic Remote ON/OFF.
Module ON.....<1.8 VDC
Module OFF.....>3.5 VDC or Open Circuit

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 | | 250 kHz |
| Recommended Reflow Soldering Pb-free* | | see diagram |
| Operating Case Temperature Range | | -40°C to +100°C |
| Storage Temperature Range | | -55°C to +105°C |
| Thermal Shutdown (Case Temperature) | | +105°C |
| Dimensions | | 2.28x2.4x0.5 Inches (57.9x61.0x12.7 mm) |
| Case Material | | Aluminum |

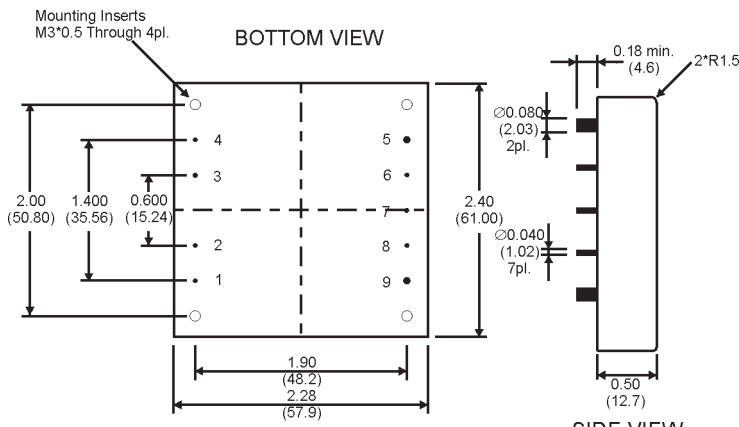
*) We do not recommend vapor phase soldering!

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MECHANICAL SPECIFICATIONS

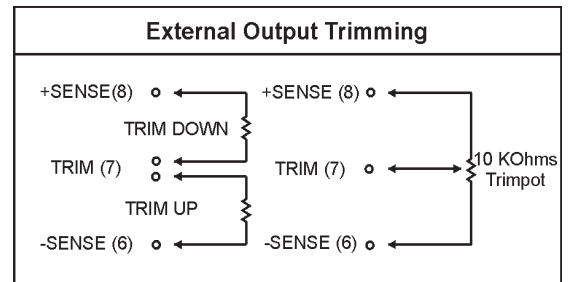
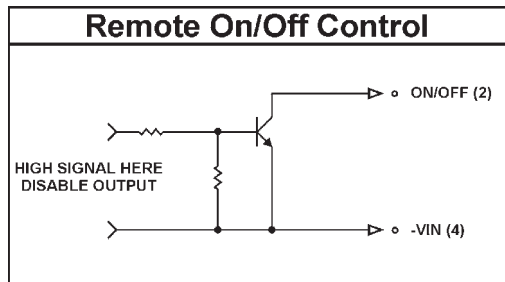
Case „M“



All Dimensions in Inches (mm).
Tolerance: x.xx=±0.02, x.xxx=±0.010 Inches
(x.x=±0.5, x.xx=±0.250 mm)

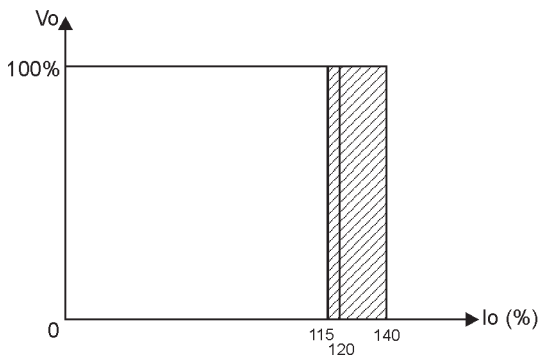
| PIN CONNECTIONS | |
|-----------------|----------------|
| 1 | +INPUT |
| 2 | REMOTE CONTROL |
| 3 | CASE |
| 4 | -INPUT |
| 5 | -OUTPUT |
| 6 | -SENSE |
| 7 | TRIM |
| 8 | +SENSE |
| 9 | +OUTPUT |

DIAGRAMS



APPLICATION NOTE

Current Limit Curve



Output Short, Vo Characteristics

