

**SINGLE-PHASE GLASS PASSIVATED
SILICON BRIDGE RECTIFIER**

VOLTAGE RANGE 50 to 1000 Volts CURRENT 10 Amperes

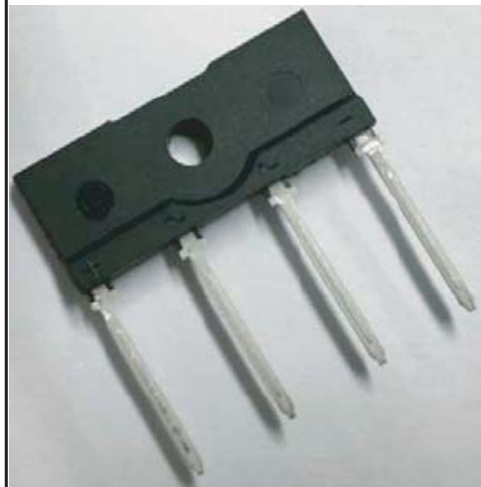
FEATURES

- * Low leakage
- * Low forward voltage
- * Mounting position : Any
- * Surge overload rating: 150 Amperes peak
- * Ideal for printed circuit boards
- * MSL: Level 1

MECHANICAL DATA

- * Epoxy: Device has UL flammability classification 94V-O

RS-10MLS



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
resistive or inductive load.

MAXIMUM CHARACTERISTICS (@ TA = 25°C unless otherwise noted)

| CHARACTERISTICS | SYMBOL | RS1001MLS | RS1002MLS | RS1003MLS | RS1004MLS | RS1005MLS | RS1006MLS | RS1007MLS | UNITS |
|--|----------------------------------|--------------|-----------|-----------|-----------|-----------|-----------|-----------|------------------|
| Maximum Recurrent Peak Reverse Voltage | V _{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum RMS Bridge Input Voltage | V _{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | Volts |
| Maximum DC Blocking Voltage | V _{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum Average Forward Rectified Output Current at T _c =95 °C degree with heatsink | I _o | 10 | | | | | | | Amps |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load | I _{FSM} | 150 | | | | | | | Amps |
| Typical Current Square Time | I ² T | 93.37 | | | | | | | A ² S |
| Insulation voltage | V _{iso} | 3000 | | | | | | | Volts |
| Typical Thermal Resistance from junction to ambient | R _{θJA} | 28 | | | | | | | °C/W |
| Typical Thermal Resistance from junction to case | R _{θJC} | 2.8 | | | | | | | |
| Operating and Storage Temperature Range | T _J ,T _{STG} | -55 to + 150 | | | | | | | °C |

ELECTRICAL CHARACTERISTICS (@ TA = 25°C unless otherwise noted)

| CHARACTERISTICS | SYMBOL | RS1001MLS | RS1002MLS | RS1003MLS | RS1004MLS | RS1005MLS | RS1006MLS | RS1007MLS | UNITS |
|--|----------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-------|
| Maximum Forward Voltage Drop per element at 5.0A DC | V _F | 1.1 | | | | | | | Volts |
| Maximum Reverse Current at Rated DC Blocking Voltage per element | @TA=25 °C | 0.2 | | | | | | | μAmps |
| | @TC=100 °C | 50 | | | | | | | μAmps |

Note: "Fully ROHS compliant", "100% Sn plating (Pb-free)".

RATING AND CHARACTERISTICS CURVES (RS1001MLS THRU RS1007MLS)

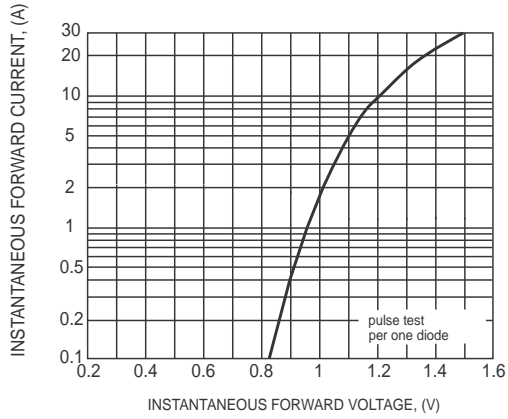


FIG.1 MAXIMUM INSTANTANEOUS FORWARD CHARACTERISTICS

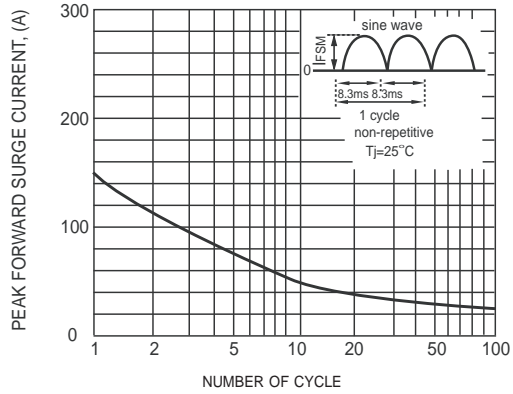


FIG.2 SURGE FORWARD CURRENT CAPABILITY

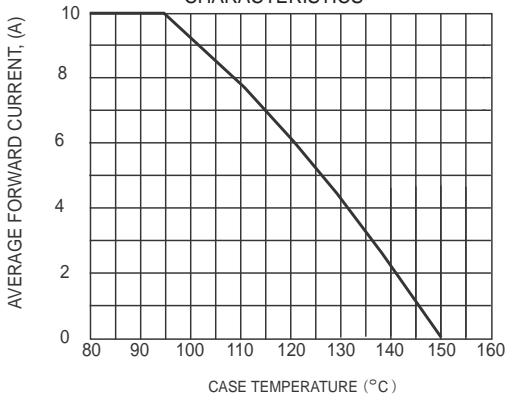


FIG.3 TYPICAL FORWARD CURRENT DERATING CURVE

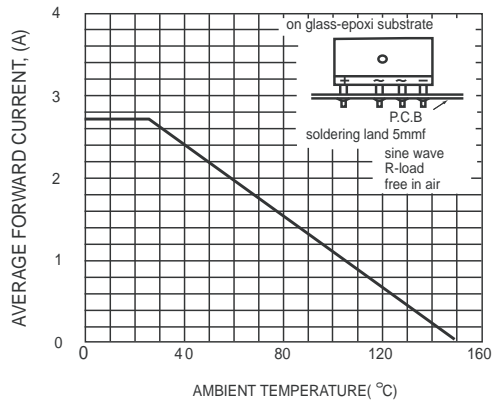
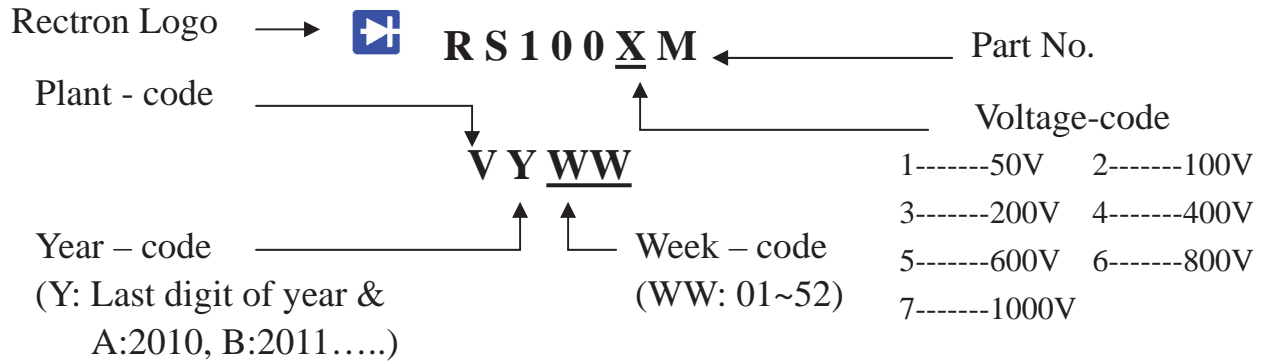
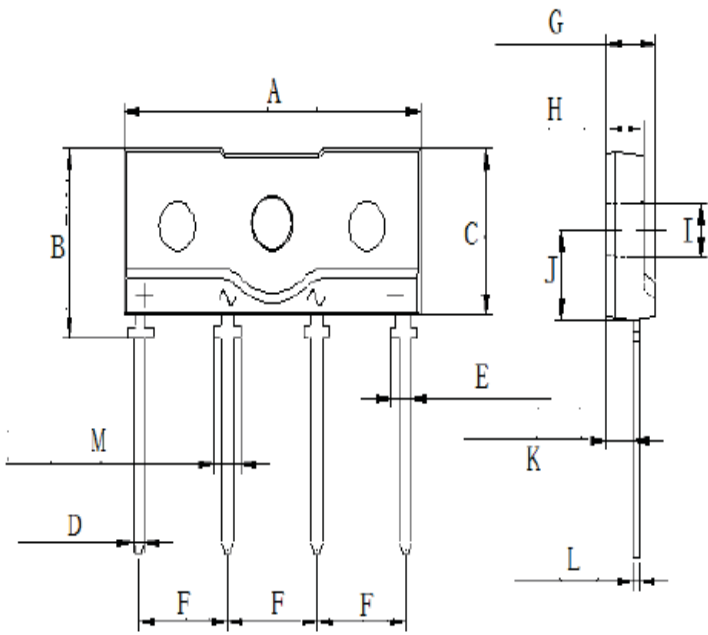


FIG.4 TYPICAL FORWARD CURRENT DERATING CURVE

Marking Description



RS-10MLS



Dimensions in inches and millimeters

| Dim | Min | Max |
|-----|-----------|------|
| A | 24.7 | 25.3 |
| B | 11.4 | 12.0 |
| C | 10.0 | 10.6 |
| D | 0.9 | 1.1 |
| E | 1.75(MAX) | |
| F | 7.3 | 7.7 |
| G | 3.9 | 4.5 |
| H | 2.9 | 3.9 |
| I | 3.1 | 3.4 |
| J | 5.4 | 6.0 |
| K | 2.0 | 2.6 |
| L | 0.4 | 0.6 |
| M | 2.1 | 2.3 |

PACKAGING OF DIODE AND BRIDGE RECTIFIERS

BULK PACK

| PACKAGE | PACKING CODE | EA PER BOX | INNER BOX SIZE (mm) | CARTON SIZE (mm) | EA PER CARTON | GROSS WEIGHT(Kg) |
|----------|--------------|------------|------------------------|---------------------|---------------|---------------------|
| RS-10MLS | -B | 250 | 300*138*35 | 319*296*165 | 2000 | 9.7 |

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