RECTRON
SEMICONDUCTOR
TECHNICAL SPECIFICATION

# RS1501M THRU RS1507M

## *SINGLE-PHASE SILICON BRIDGE RECTIFIER*

### *VOLTAGE RANGE 50 to 1000 Volts CURRENT 15 Amperes*

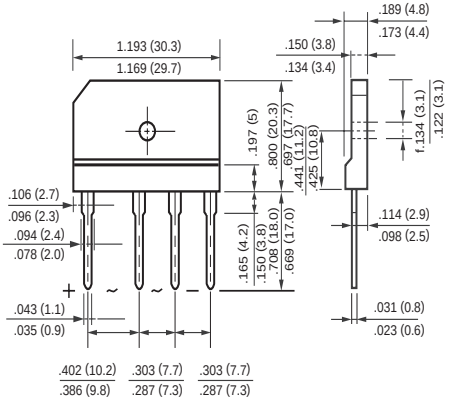
### FEATURES

* Low leakage
* Low forward voltage
* Mounting position: Any
* Surge overload rating: 250 amperes peak
* Ideal for printed cikcuit boakds
* High forward surge current capability

### MECHANICAL DATA

* UL listed the recognized component directory, file #E94233
* Epoxy: Device has UL flammability classification 94V-O

RS-15M




Dimensions in inches and (millimeters)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

**MAXIMUM RATINGS** (At $T_A$ = 25°C unless otherwise noted)

| RATINGS | SYMBOL | RS1501M | RS1502M | RS1503M | RS1504M | RS1505M | RS1506M | RS1507M | 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 Tc = 100°C with heatsink | $I_O$ | 15 | | | | | | | Amps |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load | $I_{FSM}$ | 250 | | | | | | | Amps |
| Operating and Storage Temperature Range | $T_J$,$T_{STG}$ | -55 to + 150 | | | | | | | °C |

**ELECTRICAL CHARACTERISTICS** (At $T_A$ = 25°C unless otherwise noted)

| CHARACTERISTICS | | SYMBOL | RS1501M | RS1502M | RS1503M | RS1504M | RS1505M | RS1506M | RS1507M | UNITS |
|---|---|---|---|---|---|---|---|---|---|---|
| Maximum Forward Voltage Drop per element at 7.5A DC | | $V_F$ | 1.1 | | | | | | | Volts |
| Maximum Reverse Current at Rated | @$T_A$ = 25°C | $I_R$ | 10 | | | | | | | uAmps |
| DC Blocking Voltage per element | @$T_C$ = 100°C | | 0.2 | | | | | | | mAmps |

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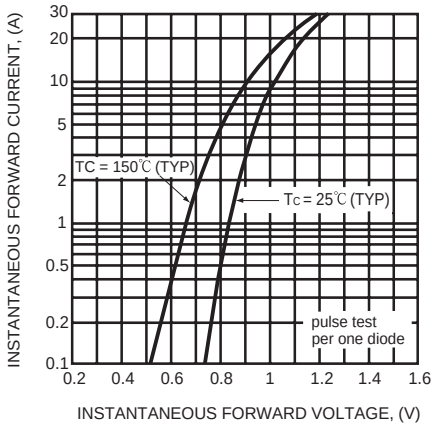
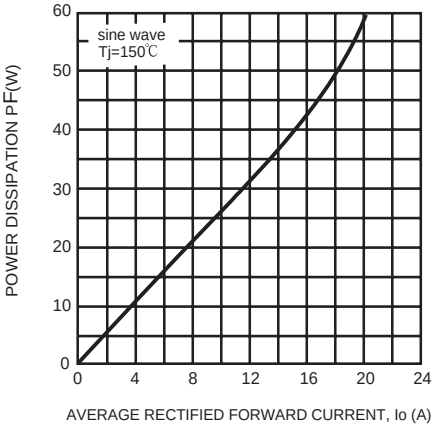
# RATING AND CHARACTERISTIC CURVES (RS1501M THRU RS1507M)

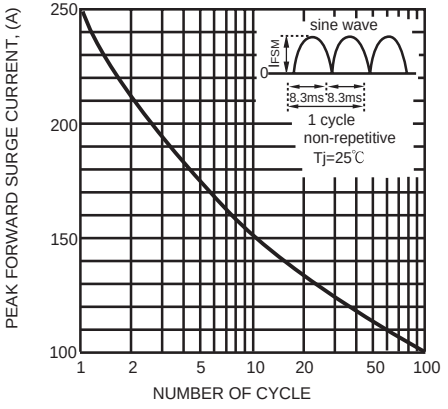
TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



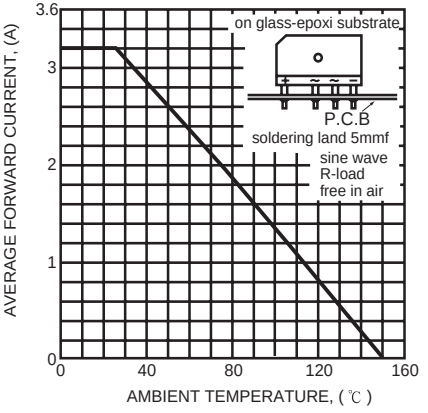

POWER DISSIPATION



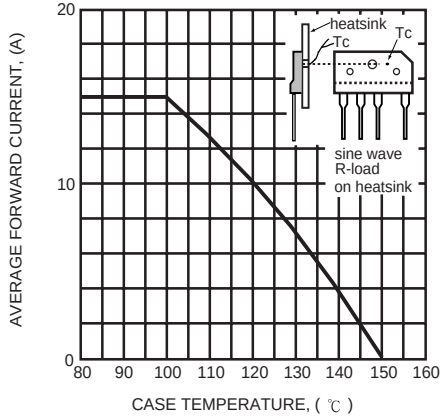

SURGE FORWARD CURRENT CAPABILITY




TYPICAL FORWARD CURRENT DERATING CURVE




TYPICAL FORWARD CURRENT DERATING CURVE

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