

SINGLE-PHASE GLASS PASSIVATED
SILICON BRIDGE RECTIFIER

VOLTAGE RANGE 50 to 1000 Volts CURRENT 35 Amperes

FEATURES

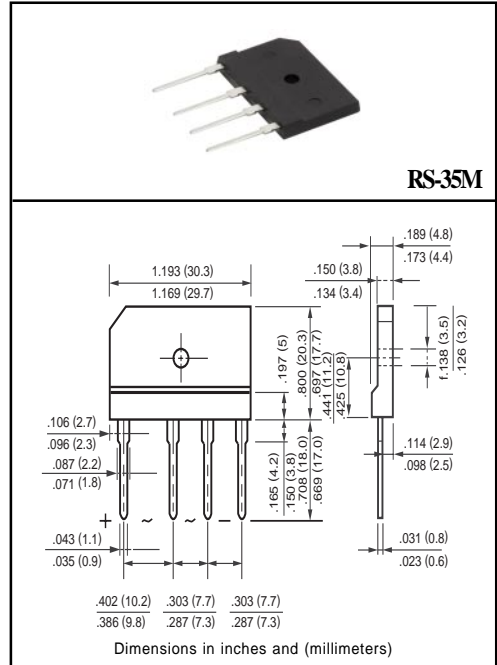
- * Low leakage
- * Low forward voltage
- * Mounting position: Any
- * Surge overload rating: 300 amperes peak
- * Ideal for printed circuit boards
- * High forward surge current capability

MECHANICAL DATA

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

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 TA = 25°C unless otherwise noted)

RATINGS	SYMBOL	RS3501M	RS3502M	RS3503M	RS3504M	RS3505M	RS3506M	RS3507M	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	35							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load	I _{FSM}	300							Amps
Typical Thermal Resistance from junction to ambient	R _{θJA}	22							°C/W
Typical Thermal Resistance from junction to case	R _{θJC}	1.0							
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to + 150							°C

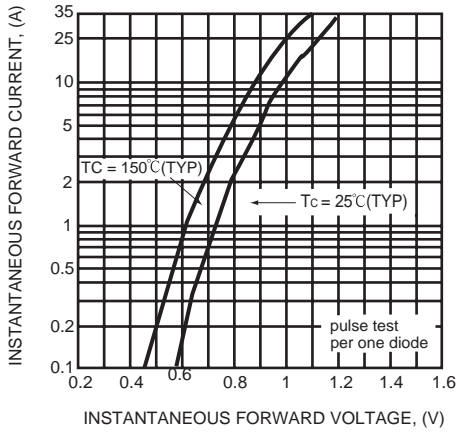
ELECTRICAL CHARACTERISTICS (At TA = 25°C unless otherwise noted)

CHARACTERISTICS	SYMBOL	RS3501M	RS3502M	RS3503M	RS3504M	RS3505M	RS3506M	RS3507M	UNITS
Maximum Forward Voltage Drop per element at 17.5A DC	V _F	1.1							Volts
Maximum Reverse Current at Rated	I _R	5.0							uAmps
DC Blocking Voltage per element		0.2							mAmps

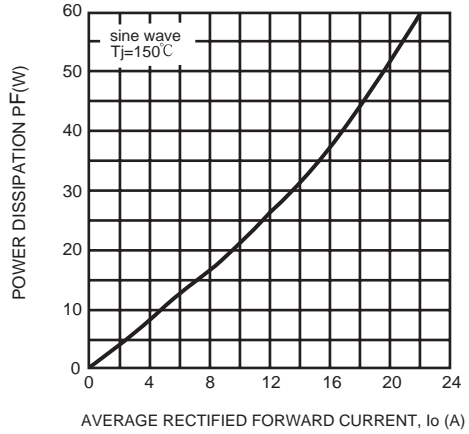
Note: "Fully ROHS compliant", "100% Sn plating (Pb-free)".

RATING AND CHARACTERISTIC CURVES (RS3501M THRU RS3507M)

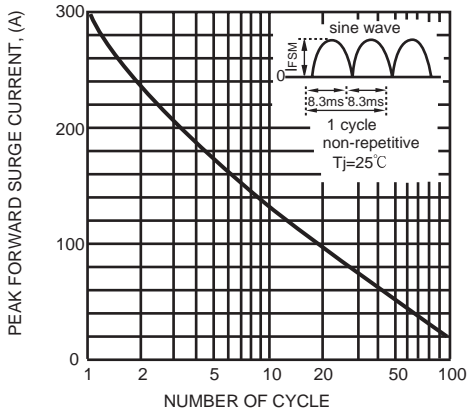
TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



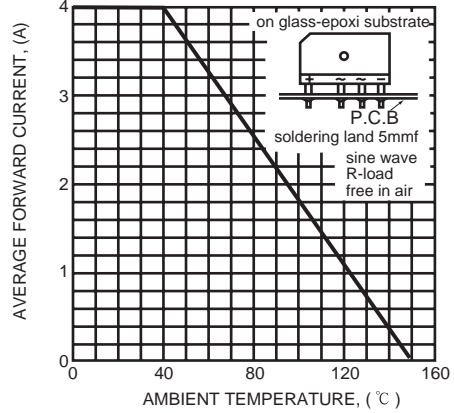
POWER DISSIPATION



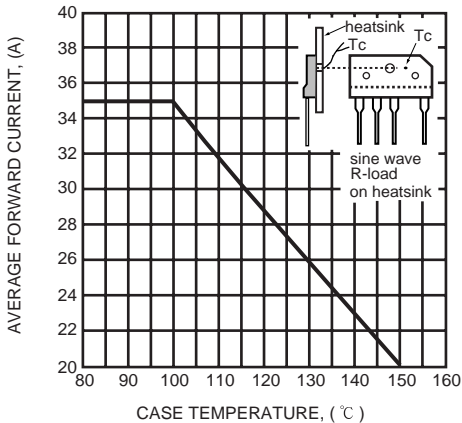
SURGE FORWARD CURRENT CAPABILITY



TYPICAL FORWARD CURRENT DERATING CURVE



TYPICAL FORWARD CURRENT DERATING CURVE



CONTACT THERMAL RESISTANCE θ_{c-f}

