

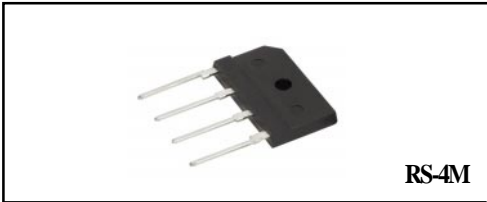
**SINGLE-PHASE GLASS PASSIVATED
SILICON BRIDGE RECTIFIER**
VOLTAGE 400 Volts CURRENT 4.0 Ampere

FEATURES

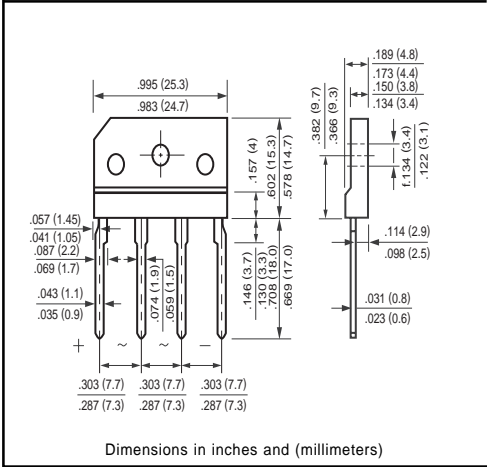
- * Ideal for printed circuit board
- * Surge overload rating: 150 amperes peak
- * Mounting position: Any

MECHANICAL DATA

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



RS-4M



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	ERS404M	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	400	Volts
Maximum RMS Bridge Input Voltage	VRMS	280	Volts
Maximum DC Blocking Voltage	Vdc	400	Volts
Maximum Average Forward Output Current at Tc = 100°C	Io	4.0	Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	IFSM	150	Amps
Typical Thermal Resistance per leg (Note 3) (Note 2)	R θJA	22	°C/W
	R θJC	4.2	
Operating Temperature Range	TJ	-55 to + 150	°C
Storage Temperature Range	TSTG	-55 to + 150	°C
Typical Junction Capacitance (Note)	CJ	40	pF

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

CHARACTERISTICS	SYMBOL	ERS404M	UNITS
Maximum Forward Voltage Drop per Bridgeat Element at 2.0A DC	VF	1.0	Volts
Maximum Reverse Current at Rated Dc Blocking Voltage per element	IR	@ TA = 25°C	5.0
		@ TA = 125°C	0.5
Maximum Reverse Recovery Time (Note 4)	ttr	35	nSec

- NOTES : 1. Measured at 1 MHz and applied reverse voltage of 4.0 volts
2. Unit case mounted on 1.6 x 1.6 x 0.06" thick (4.0 x 4.0 x 0.15cm) Al. Plate
3. Units mounted on P.C.B. with 0.5 x 0.5" (12 x 12mm) copper pads and 0.375" (9.5mm) lead length
4. Test Conditions: IF=0.5A, IR=1.0A, IRR=-0.25A.
5. Pb free for leads.

RATING AND CHARACTERISTIC CURVES (ERS40M-Z)

FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

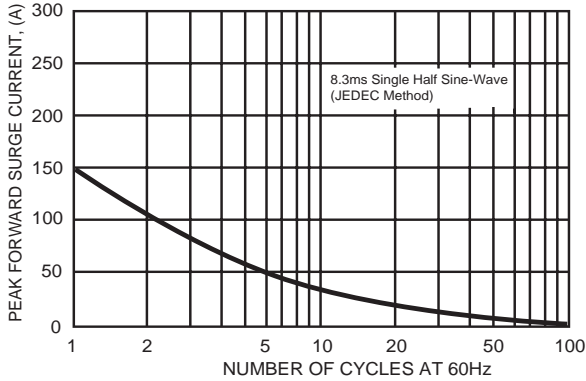


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

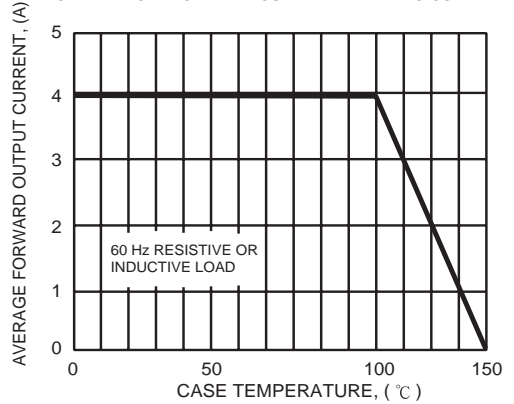


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

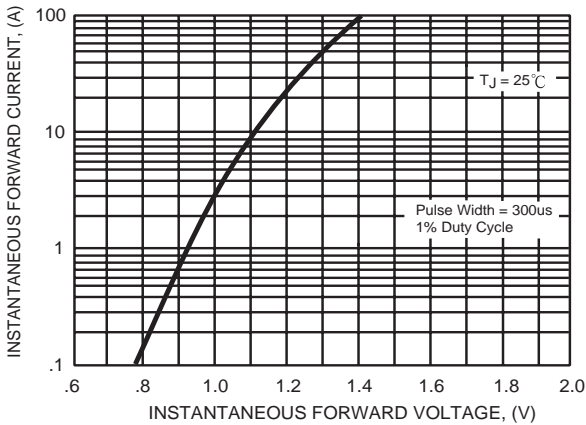


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

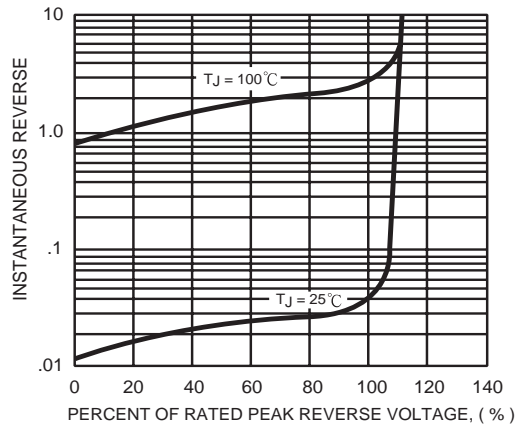


FIG. 5 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

