

SINGLE-PHASE SILICON BRIDGE RECTIFIER

VOLTAGE RANGE 50 to 1000 Volts CURRENT 10 Amperes

FEATURES

- * Surge overload rating: 200 amperes peak
- * Low forward voltage drop

MECHANICAL DATA

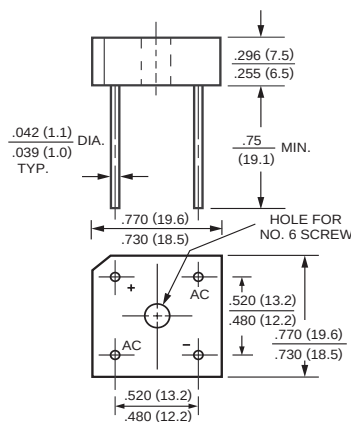
- * UL listed the recognized component directory, file #E94233
- * Epoxy: Device has UL flammability classification 94V-O
- * Lead: Mil-STD-202E method 208C guaranteed
- * Mounting position: Any
- * Weight: 7.86 grams
- * Mounting: Hole thru for # 6 screw

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%.



BR-10



Dimensions in inches and (millimeters)

MAXIMUM RATINGS (At $T_A = 25^\circ\text{C}$ unless otherwise noted)

RATINGS	SYMBOL	BR1005	BR101	BR102	BR104	BR106	BR108	BR1010	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS 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 $T_c = 50^\circ\text{C}$ Rectified Output Current at: $T_c = 100^\circ\text{C}$ $T_A = 50^\circ\text{C}$	I_o	10.0 6.0 6.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	200							Amps
Typical Thermal Resistance	$R_{\theta JA}$	28							$^\circ\text{C/W}$
Typical Thermal Resistance	$R_{\theta JC}$	6.5							$^\circ\text{C/W}$
Operating Temperature Range	T_J	-55 to $+150$							$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to $+150$							$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS (At $T_A = 25^\circ\text{C}$ unless otherwise noted)

CHARACTERISTICS	SYMBOL	BR1005	BR101	BR102	BR104	BR106	BR108	BR1010	UNITS
Maximum Forward Voltage Drop per element at 5.0A DC	V_F	1.1							Volts
Maximum Reverse Current at Rated @ $T_A = 25^\circ\text{C}$	I_R	5.0							μAmps
DC Blocking Voltage per element @ $T_c = 100^\circ\text{C}$		0.2							mAmps

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

RATING AND CHARACTERISTIC CURVES (BR1005 THRU BR1010)

FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

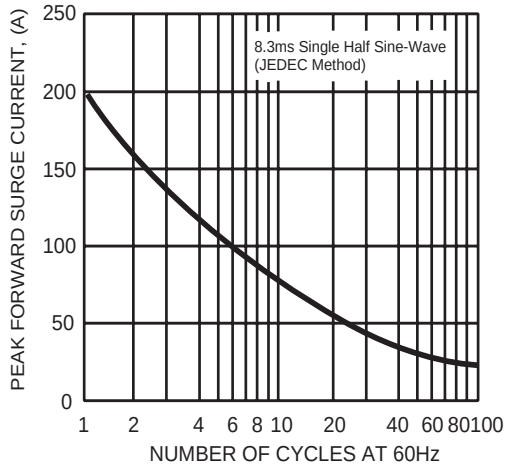


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

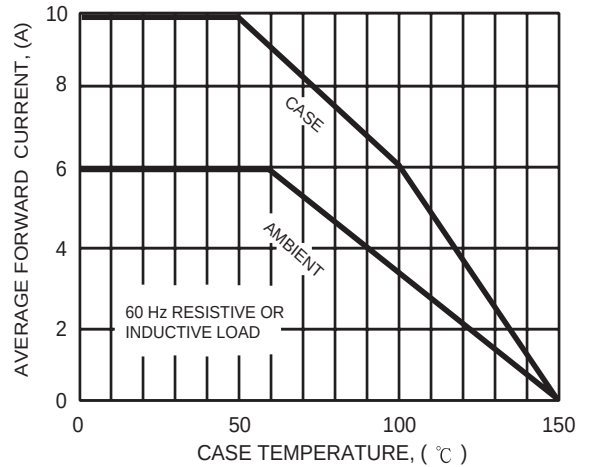


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

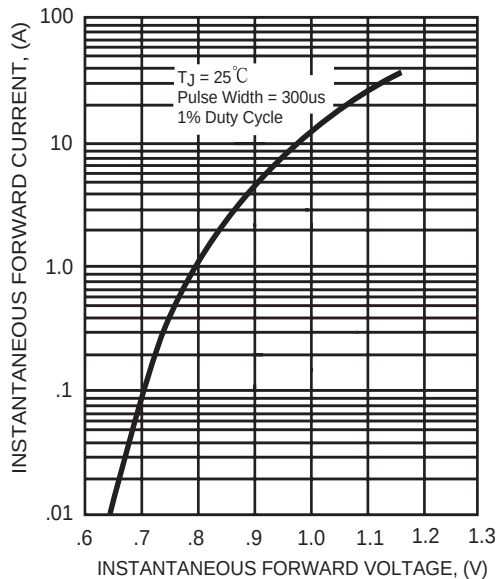


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

