

SINGLE-PHASE SILICON BRIDGE RECTIFIER

VOLTAGE RANGE 50 to 1000 Volts CURRENT 6.0 Amperes

FEATURES

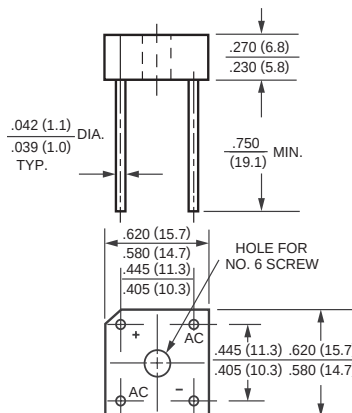
- * Surge overload rating: 125 amperes peak
- * Low forward voltage drop
- * Small size: simple installation
- * Mounting position: Any
- * Mounting: Hole thru for # 6 screw

MECHANICAL DATA

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



BR-6



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 $T_A = 25^\circ\text{C}$ unless otherwise noted)

RATINGS	SYMBOL	BR605	BR61	BR62	BR64	BR66	BR68	BR610	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 $T_c = 75^{\circ}\text{C}$	I_o	6.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	125							Amps
Typical Thermal Resistance from junction to case	$R_{\theta JC}$	7.3							$^{\circ}\text{C/W}$
Typical Thermal Resistance from junction to ambient	$R_{\theta JA}$	28							
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	BR605	BR61	BR62	BR64	BR66	BR68	BR610	UNITS
Maximum Forward Voltage Drop per element at 3.0A DC	V_F	1.0							Volts
Maximum Reverse Current at Rated	I_R	5.0							μAmps
DC Blocking Voltage per element		0.2							mAmps

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

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RATING AND CHARACTERISTIC CURVES (BR605 THRU BR610)

FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

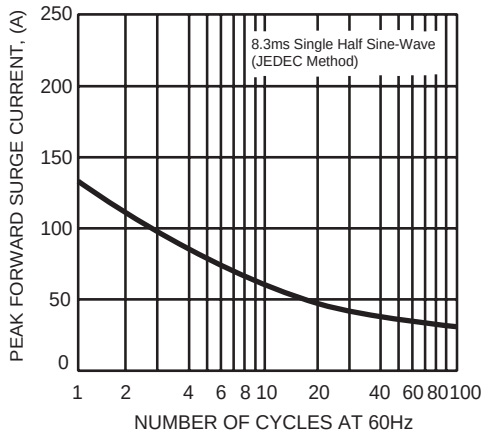


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

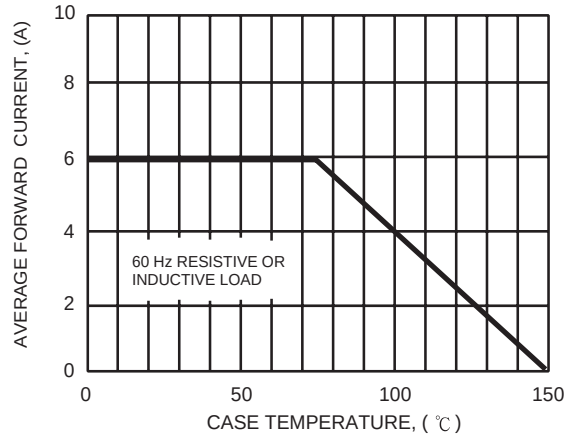


FIG. 3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

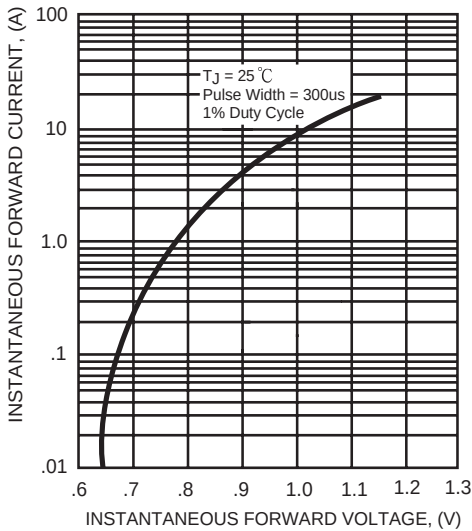


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

