

BR1000 - BR1010

PRV : 50 - 1000 Volts

Io : 10 Amperes

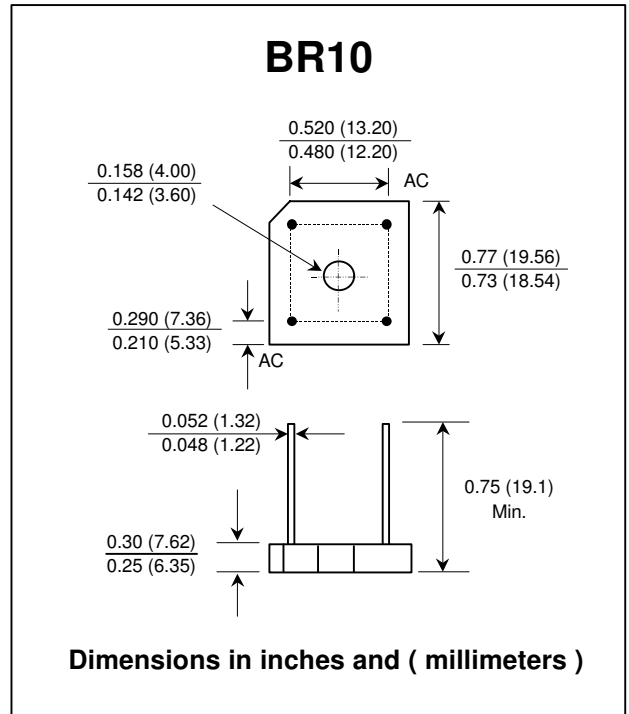
FEATURES :

- * High current capability
- * High surge current capability
- * High reliability
- * Low reverse current
- * Low forward voltage drop
- * Ideal for printed circuit board
- * Pb / RoHS Free

MECHANICAL DATA :

- * Case : Reliable low cost construction utilizing molded plastic technique
- * Epoxy : UL94V-O rate flame retardant
- * Lead : Axial lead solderable per MIL - STD 202 , Method 208 guaranteed
- * Polarity : Polarity symbols marked on case
- * Mounting position : Any
- * Weight : 6.1 grams

SILICON BRIDGE RECTIFIERS



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 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%.

RATING	SYMBOL	BR1000	BR1001	BR1002	BR1004	BR1006	BR1008	BR1010	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Current $T_c=55^{\circ}C$	$I_{F(AV)}$	10							A
Peak Forward Surge Current Single half sine wave Superimposed on rated load (JEDEC Method)	I_{FSM}	300							A
Current Squared Time at $t < 8.3$ ms.	I^2t	160							A ² S
Maximum Forward Voltage per Diode at $I_F = 5$ A	V_F	1.0							V
Maximum DC Reverse Current $T_a = 25^{\circ}C$ at Rated DC Blocking Voltage $T_a = 100^{\circ}C$	I_R	10							μA
	$I_{R(H)}$	200							μA
Typical Thermal Resistance (Note 1)	$R_{\theta JC}$	2.5							$^{\circ}C/W$
Operating Junction Temperature Range	T_J	- 40 to + 150							$^{\circ}C$
Storage Temperature Range	T_{STG}	- 40 to + 150							$^{\circ}C$

Notes :

1. Thermal Resistance from junction to case with units mounted on a 3.2" x 3.2" x 0.12" (8.2cm.x 8.2cm.x 0.3cm.) Al.-Finned Plate.



SYNSEMI SEMICONDUCTOR

RATING AND CHARACTERISTIC CURVES (BR1000 - BR1010)

FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

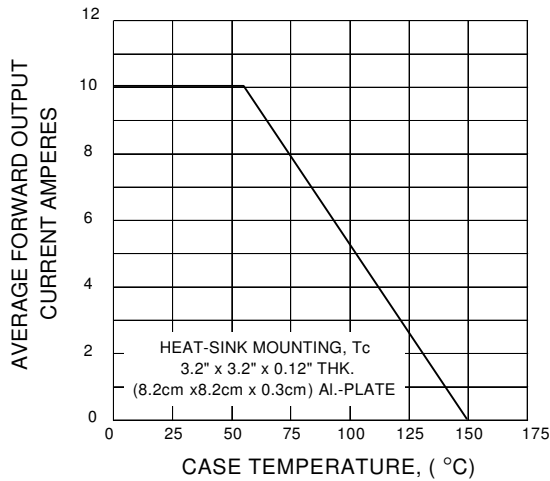


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

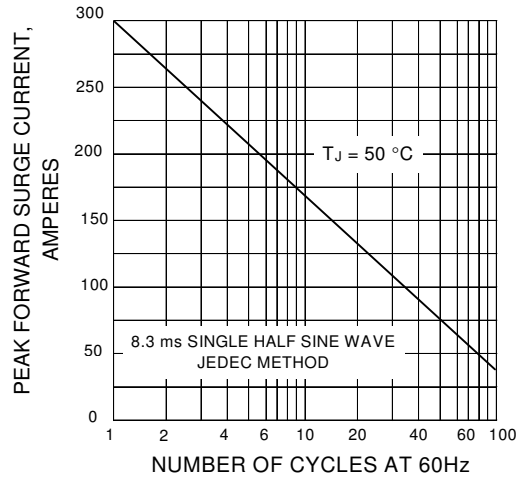


FIG.3 - TYPICAL FORWARD CHARACTERISTICS PER DIODE

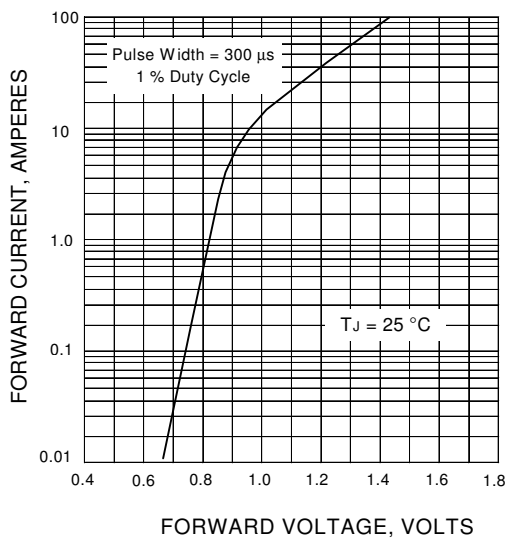


FIG.4 - TYPICAL REVERSE CHARACTERISTICS PER DIODE

