

BR1000 - BR1010

SILICON BRIDGE RECTIFIERS

PRV : 50 - 1000 Volts

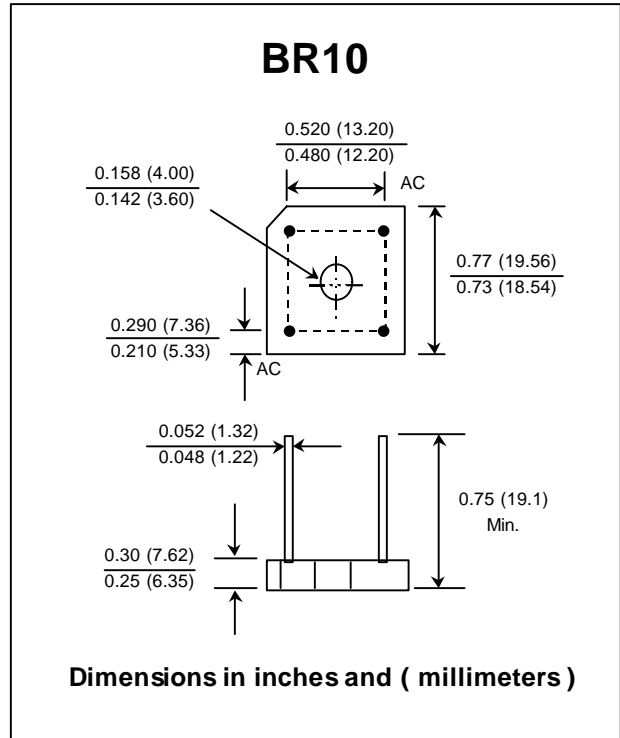
Io : 10 Amperes

FEATURES :

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

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



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	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 Current $T_c=55^\circ C$	$I_{F(AV)}$	10							Amp.	
Peak Forward Surge Current Single half sine wave Superimposed on rated load (JEDEC Method)	I_{FSM}					300				Amp.
Current Squared Time at $t < 8.3$ ms.	$I^2 t$					160				A ² S
Maximum Forward Voltage per Diode at $I_F = 5$ Amp.	V_F					1.0				Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	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.

UPDATE : APRIL 23, 1998

RATING AND CHARACTERISTIC CURVES (BR1000 - BR1010)

FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

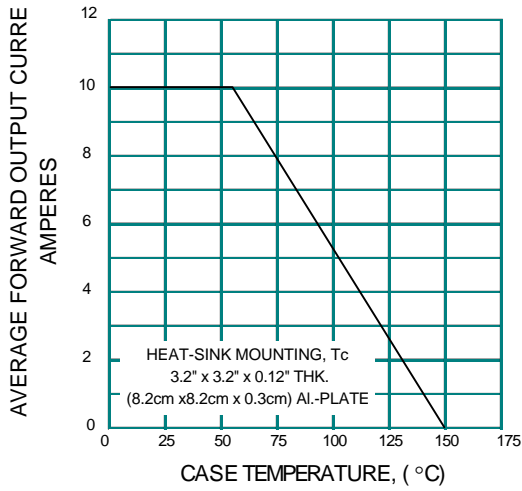


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

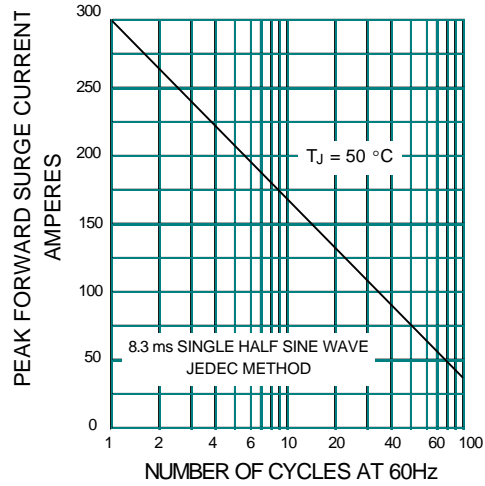


FIG.3 - TYPICAL FORWARD CHARACTERISTICS PER DIODE

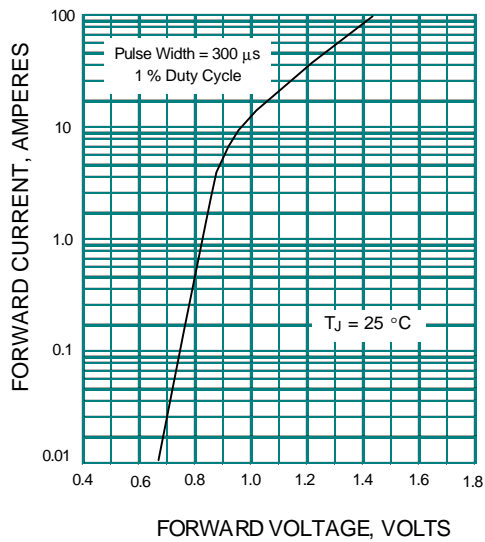


FIG.4 - TYPICAL REVERSE CHARACTERISTICS PER DIODE

