

BR1000 - BR1010

SILICON BRIDGE RECTIFIERS

PRV : 50 - 1000 Volts

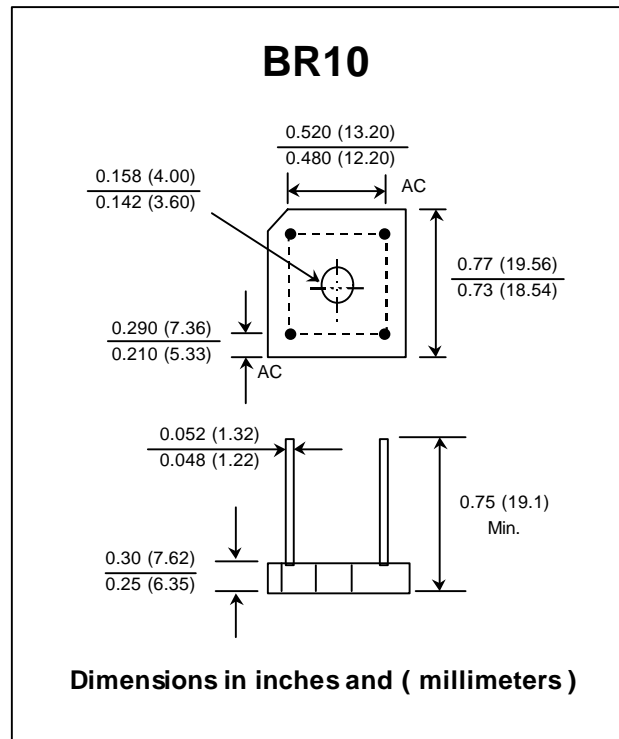
I_o : 10 Amperes

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°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	T _a = 25 °C	I _R							μA
	T _a = 100 °C	I _{R(H)}							μA
Typical Thermal Resistance (Note 1)	R _{θJC}	2.5							°C/W
Operating Junction Temperature Range	T _J	- 40 to + 150							°C
Storage Temperature Range	T _{STG}	- 40 to + 150							°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

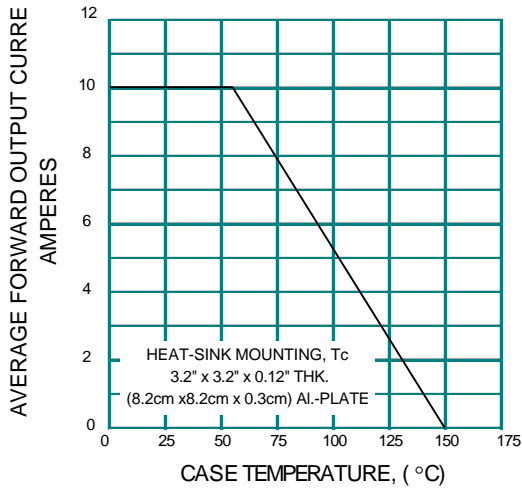


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

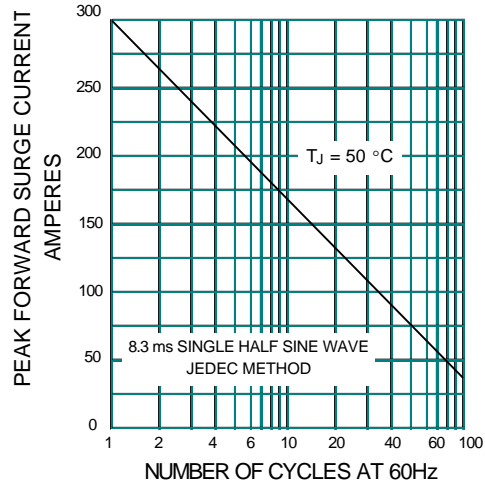


FIG.3 - TYPICAL FORWARD CHARACTERISTICS PER DIODE

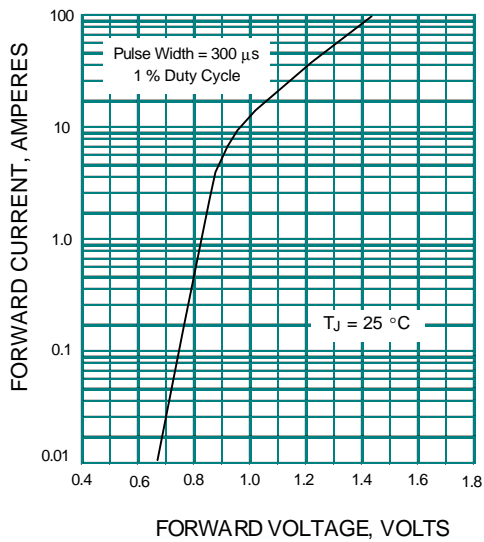


FIG.4 - TYPICAL REVERSE CHARACTERISTICS PER DIODE

