

ABR800 - ABR810

PRV : 50 - 1000 Volts

Io : 8.0 Amperes

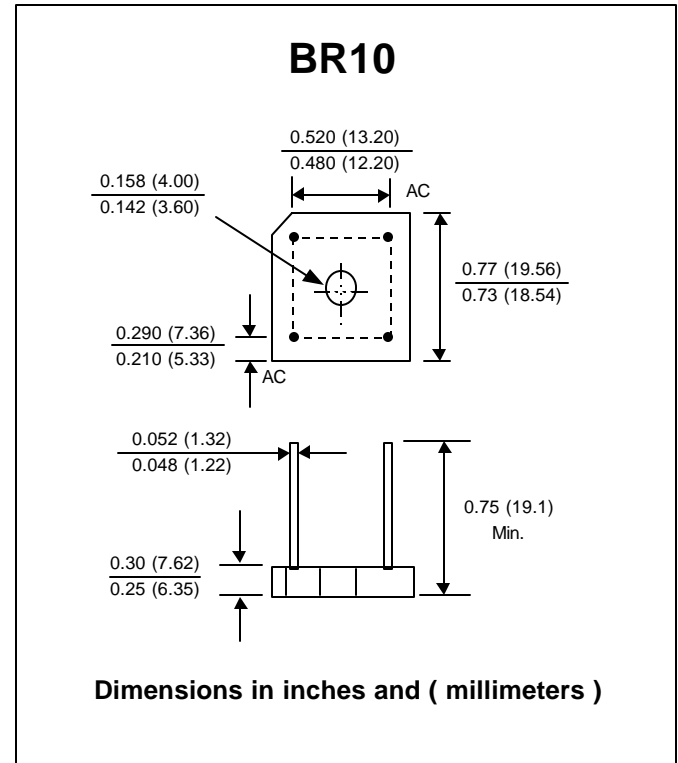
FEATURES :

- * High case dielectric strength
- * 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

AVALANCHE 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	ABR 800	ABR 801	ABR 802	ABR 804	ABR 806	ABR 808	ABR 810	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
Minimum Avalanche Breakdown Voltage at 100 μ A	$V_{BO(min.)}$	100	150	250	450	700	900	1100	Volts
Maximum Avalanche Breakdown Voltage at 100 μ A	$V_{BO(max.)}$	550	600	700	900	1150	1350	1550	Volts
Maximum Average Forward Current $T_c = 50^\circ\text{C}$	$I_{F(AV)}$	8.0							Amp.
Peak Forward Surge Current Single half sine wave Superimposed on rated load (JEDEC Method)	I_{FSM}	300							Amps.
Rating for fusing at ($t < 8.3$ ms.)	I^2t	160							A^2S
Maximum Forward Voltage per Diode at $I_F = 4.0$ Amps.	V_F	1.0							Volts
Maximum DC Reverse Current $T_a = 25^\circ\text{C}$	I_R	10							μ A
at Rated DC Blocking Voltage $T_a = 100^\circ\text{C}$	$I_{R(H)}$	10.0							mA
Typical Thermal Resistance (Note 1)	$R_{\theta JC}$	2.5							$^\circ\text{C/W}$
Operating Junction Temperature Range	T_J	- 50 to + 150							$^\circ\text{C}$
Storage Temperature Range	T_{STG}	- 50 to + 150							$^\circ\text{C}$

Notes : 1) Thermal resistance from Junction to case with units mounted on a 3.2" x 3.2" x 0.12" (8.2 x 8.2 x 0.3 cm) Al. plate. heatsink.

UPDATE : APRIL 21, 1998

RATING AND CHARACTERISTIC CURVES (ABR800 - ABR810)

FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

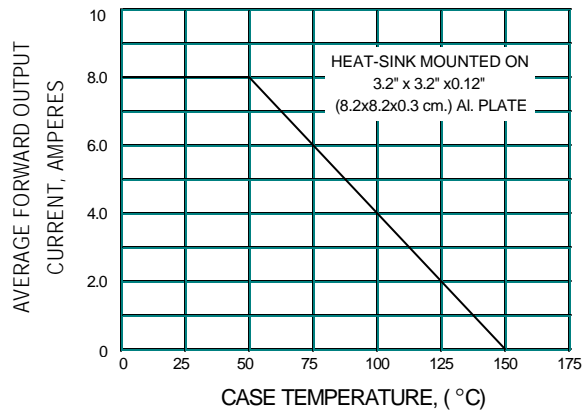


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

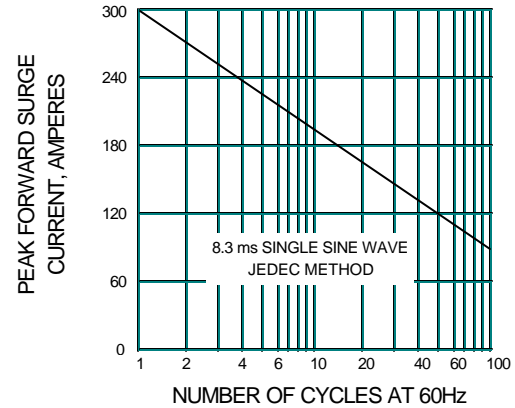


FIG.3 - TYPICAL FORWARD CHARACTERISTICS PER DIODE

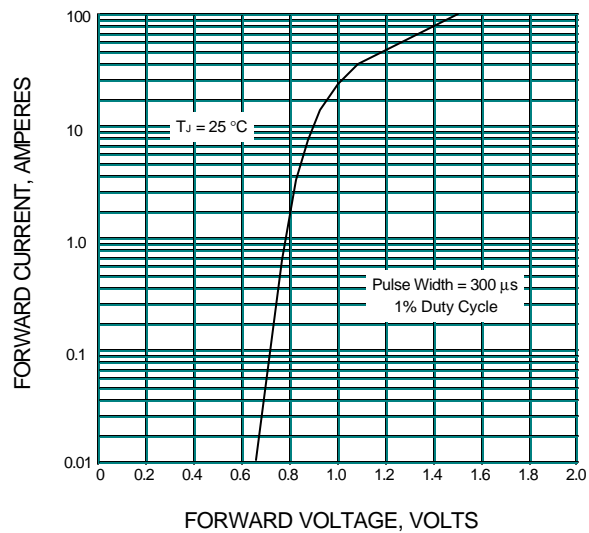


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

