

ABR600 - ABR610

PRV : 50 - 1000 Volts

Io : 6.0 Amperes

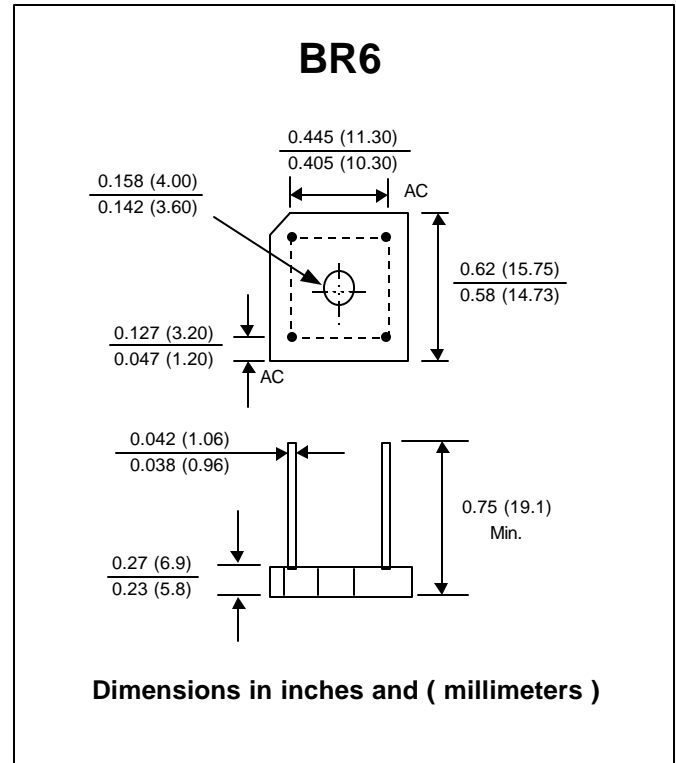
FEATURES :

- * 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 : 3.6 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 600	ABR 601	ABR 602	ABR 604	ABR 606	ABR 608	ABR 610	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 $T_c = 50^\circ C$	$I_{F(AV)}$	6.0							Amps.
Peak Forward Surge Current Single half sine wave Superimposed on rated load (JEDEC Method)	I_{FSM}	200							Amps.
Rating for fusing at ($t < 8.3$ ms.)	$I^2 t$	64							A ² S
Maximum Forward Voltage per Diode at $I_F = 3.0$ Amps.	V_F	1.0							Volts
Maximum DC Reverse Current $T_a = 25^\circ C$ at Rated DC Blocking Voltage $T_a = 100^\circ C$	I_R	10							μ A
	$I_{R(H)}$	200							μ A
Typical Thermal Resistance (Note 1)	$R_{\theta JC}$	8.0							$^\circ C/W$
Operating Junction Temperature Range	T_J	- 50 to + 150							$^\circ C$
Storage Temperature Range	T_{STG}	- 50 to + 150							$^\circ C$

Notes : 1) Thermal resistance from Junction to case with units mounted on a 2.6" x 1.4" x 0.06" THK (6.5 x 3.5 x 0.15 cm) Al. plate.

RATING AND CHARACTERISTIC CURVES (ABR600 - ABR610)

FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

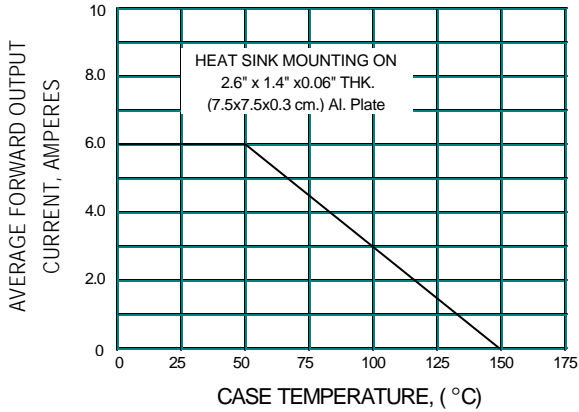


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

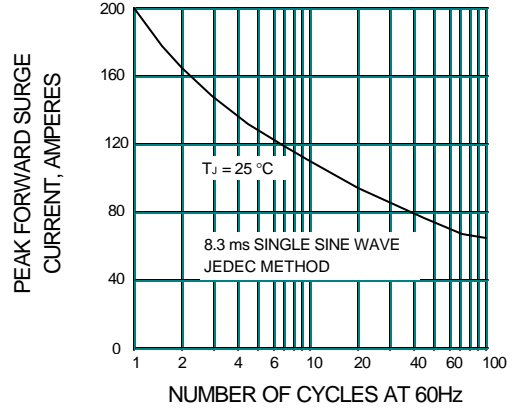


FIG.3 - TYPICAL FORWARD CHARACTERISTICS PER DIODE

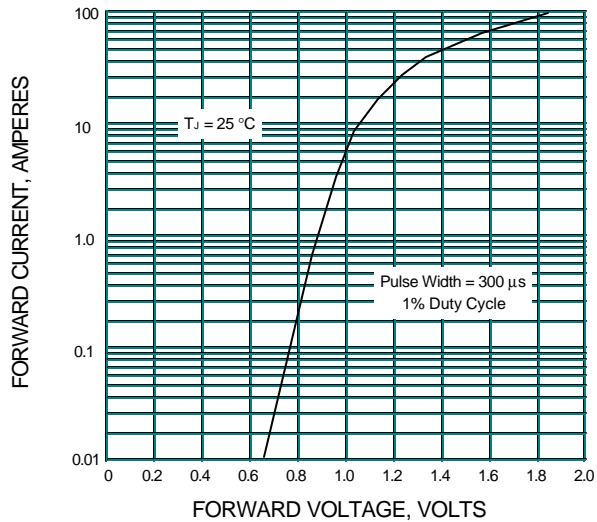


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

