

# ABR800 - ABR810

**PRV : 50 - 1000 Volts**

**Io : 8.0 Amperes**

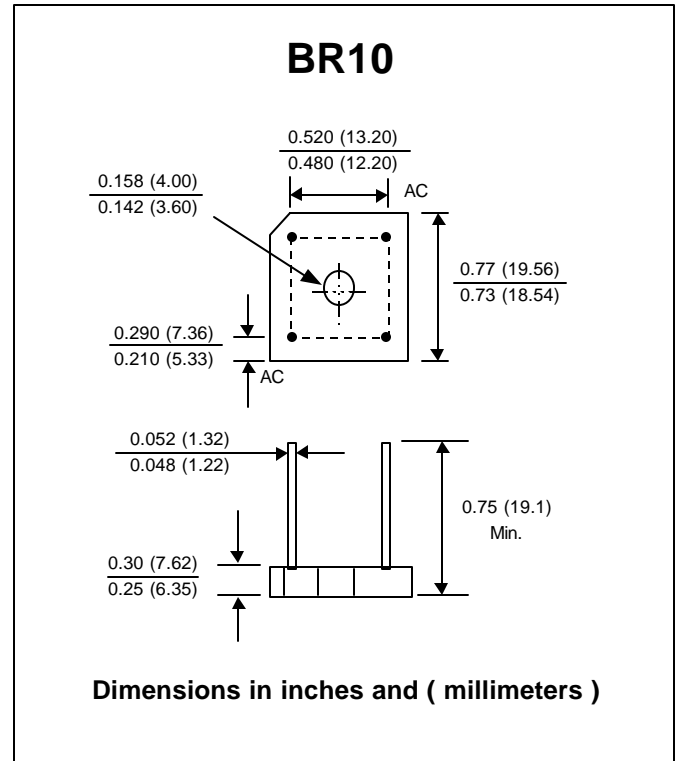
## FEATURES :

- \* 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%.

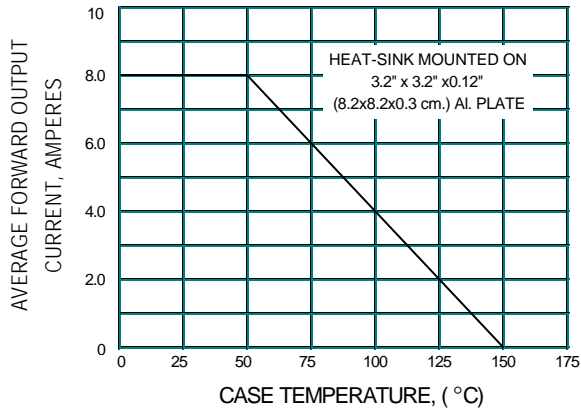
RATING	SYMBOL	ABR 800	ABR 801	ABR 802	ABR 804	ABR 806	ABR 808	ABR 810	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	Volts
Minimum Avalanche Breakdown Voltage at 100 $\mu$ A	$V_{BO(min.)}$	100	150	250	450	700	900	1100	Volts
Maximum Avalanche Breakdown Voltage at 100 $\mu$ A	$V_{BO(max.)}$	550	600	700	900	1150	1350	1550	Volts
Maximum Average Forward Current $T_c = 50^\circ C$	$I_{F(AV)}$	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. )	$I^2 t$	160							$A^2 S$
Maximum Forward Voltage per Diode at $I_F = 4.0$ 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							$\mu A$
	$I_{R(H)}$	10.0							mA
Typical Thermal Resistance ( Note 1 )	$R_{\theta JC}$	2.5							$^\circ C/W$
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 3.2" x 3.2" x 0.12" ( 8.2 x 8.2 x 0.3 cm ) Al. plate. heatsink.

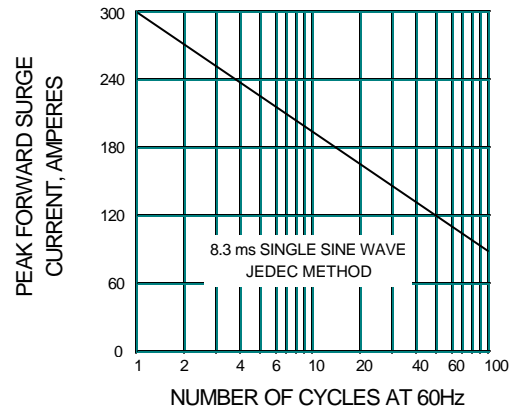
**UPDATE : APRIL 21, 1998**

## RATING AND CHARACTERISTIC CURVES ( ABR800 - ABR810)

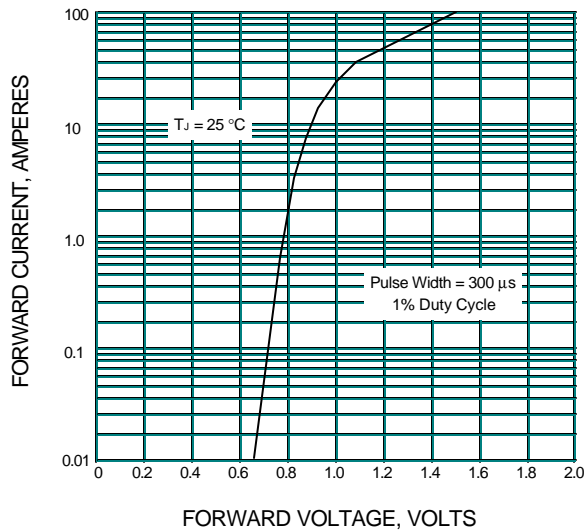
**FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



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



**FIG.3 - TYPICAL FORWARD CHARACTERISTICS PER DIODE**



**FIG.4 - TYPICAL REVERSE CHARACTERISTICS**

