Certificate Number: Q10561

Certificate Number: E17276

ABR2500 - ABR2510

AVALANCHE BRIDGE RECTIFIERS

PRV : 50 - 1000 Volts
Io : 25 Amperes

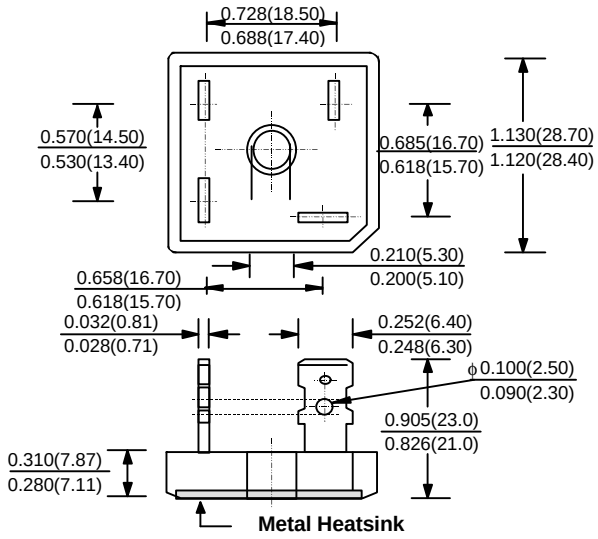
FEATURES :

* 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 : Molded plastic with heatsink integrally mounted in the bridge encapsulation
* Epoxy : UL94V-O rate flame retardant
* Terminals : plated .25" (6.35 mm). Faston
* Polarity : Polarity symbols marked on case
* Mounting position : Bolt down on heat-sink with silicone thermal compound between bridge and mounting surface for maximum heat transfer efficiency.
* Weight : 17.1 grams

BR50



Dimensions in inches and (millimeters)

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 2500	ABR 2501	ABR 2502	ABR 2504	ABR 2506	ABR 2508	ABR 2510	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 µA	$V_{BO(min.)}$	100	150	250	450	700	900	1100	Volts
Maximum Avalanche Breakdown Voltage at 100 µA	$V_{BO(max.)}$	550	600	700	900	1150	1350	1550	Volts
Maximum Average Forward Current Tc = 50°C	$I_{F(AV)}$	25							Amps.
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	375							A^2S
Maximum Forward Voltage per Diode at I_F = 12.5 Amps.	V_F	1.1							Volts
Maximum DC Reverse Current Ta = 25 °C	I_R	10							µA
at Rated DC Blocking Voltage Ta = 100 °C	$I_{R(H)}$	200							µA
Typical Thermal Resistance (Note 1)	RθJC	1.45							°C/W
Operating Junction Temperature Range	T_J	- 50 to + 150							°C
Storage Temperature Range	T_{STG}	- 50 to + 150							°C

Notes :

1) Thermal resistance from Junction to case with units mounted on a 5" x 6" x 4.9" (12.8cm x 15.2cm x 12.4 cm) Al. plate.

UPDATE : APRIL 21, 1998

RATING AND CHARACTERISTIC CURVES (ABR2500 - ABR2510)

FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

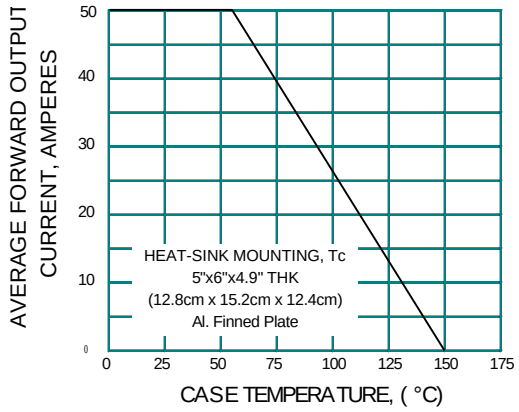


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

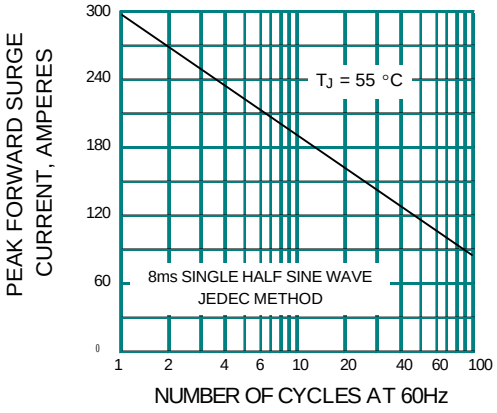


FIG.3 - TYPICAL FORWARD CHARACTERISTICS PER DIODE

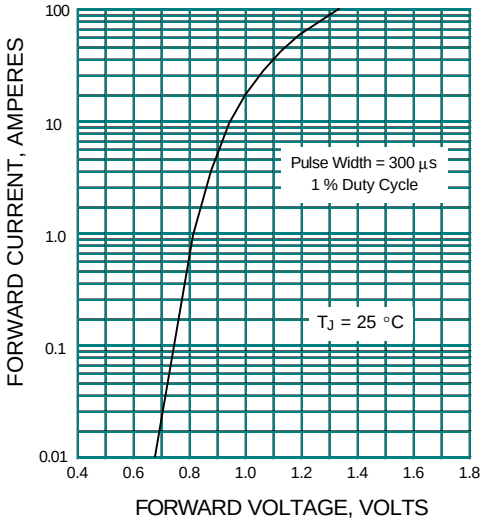


FIG.4 - TYPICAL REVERSE CHARACTERISTICS