

SILICON BRIDGE RECTIFIERS

PRV : 50 - 1000 Volts

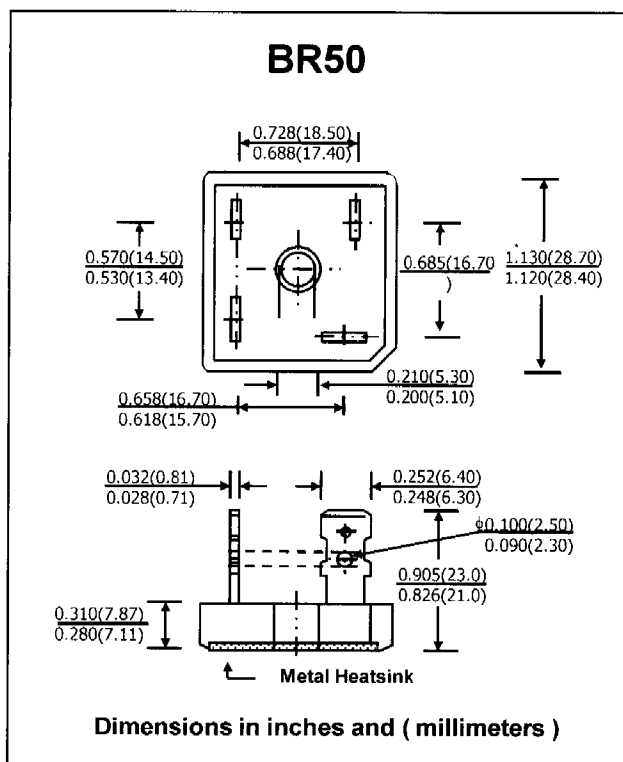
Io : 25 Amperes

FEATURES :

- * High current capability
- * High surge current capability
- * High reliability
- * Low reverse current
- * Low forward voltage drop
- * Rated isolation-voltage 2000 V_{AC}
- * Pb / RoHS Free

MECHANICAL DATA :

- * Case : Molded plastic with heatsink integrally mounted in the bridge encapsulation
- * Epoxy : UL94V-0 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



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

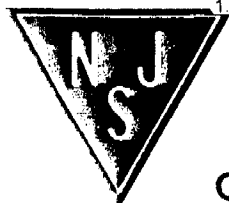
For capacitive load, derate current by 20%.

RATING	SYMBOL	BR2500	BR2501	BR2502	BR2504	BR2506	BR2508	BR2510	UNIT
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Current T _c = 55°C	I _{F(AV)}				25				A
Peak Forward Surge Current Single half sine wave Superimposed on rated load (JEDEC Method)	I _{FSM}				300				A
Current Squared Time at t < 8.3 ms.	I ² t				375				A ² S
Maximum Forward Voltage per Diode at I _F = 12.5 A	V _F				1.1				V
Maximum DC Reverse Current T _a = 25 °C	I _R				10				μA
at Rated DC Blocking Voltage T _a = 100 °C	I _{R(H)}				200				μA
Typical Thermal Resistance (Note 1)	R _{θJC}				1.45				°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 5" x 6" x 4.9" (12.8cm x 15.2cm x 12.4cm.) Al.-Finned Plate

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RATING AND CHARACTERISTIC CURVES (BR2500 - BR2510)

FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

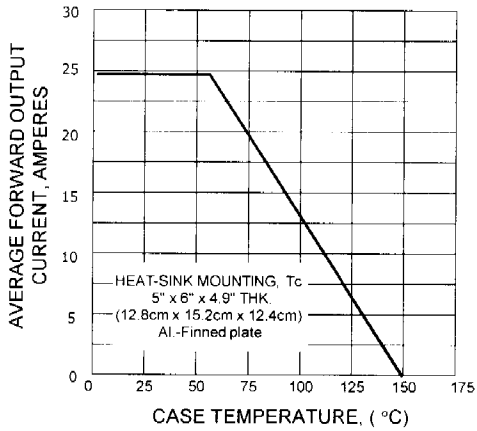


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

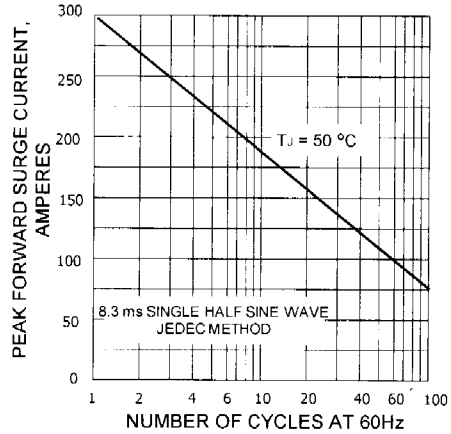


FIG.3 - TYPICAL FORWARD CHARACTERISTICS PER DIODE

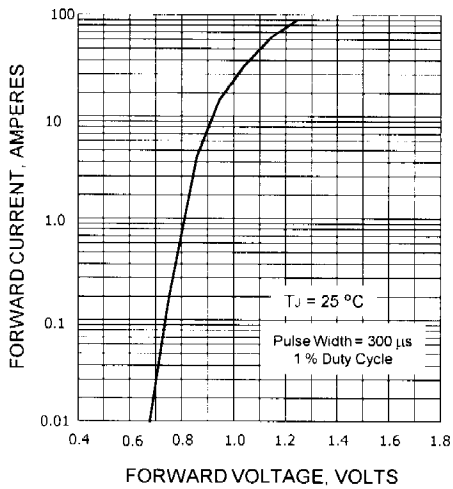


FIG.4 - TYPICAL REVERSE CHARACTERISTICS PER DIODE

