New Jersey Semi-Conductor Products, Inc.

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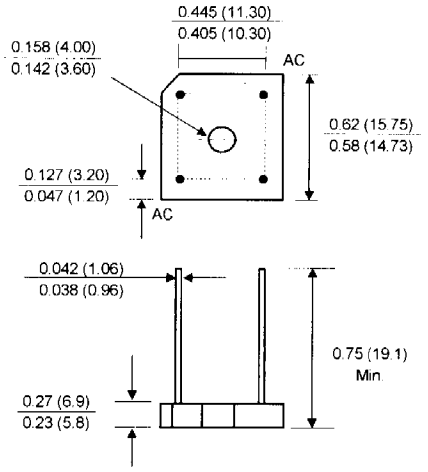
S3WB20

SILICON BRIDGE RECTIFIER

PRV : 200 Volts

Io : 2.3 Amperes

BR6



Dimensions in inches and (millimeters)

FEATURES :

* High current capability
* High surge current capability
* High reliability
* Low reverse current
* Low forward voltage drop
* Ideal for printed circuit board
* Pb / RoHS Free

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

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	S3WB20	UNIT
Maximum Reverse Voltage	V_{RRM}	200	V
Maximum DC Blocking Voltage	V_{DC}	50	V
Maximum Average Forward Current Tc=50°C	$I_{F(AV)}$	2.3	A
Peak Forward Surge Current, Single half sine wave Superimposed on rated load (JEDEC Method)	I_{FSM}	120	A
Current Squared Time at t < 8.3 ms.	I^2t	60	A^2S
Maximum Forward Voltage per Diode at I_F =3 A.	V_F	1.0	V
Maximum DC Reverse Current Ta = 25 °C	I_R	10	µA
Typical Thermal Resistance	RθJL	5.5	°C/W
	RθJA	26.5	
Operating Junction Temperature Range	T_J	- 40 to + 150	°C
Storage Temperature Range	T_{STG}	- 40 to + 150	°C

NJ Semi-Conductors reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by NJ Semi-Conductors is believed to be both accurate and reliable at the time of going to press. However, NJ Semi-Conductors assumes no responsibility for any errors or omissions discovered in its use. NJ Semi-Conductors encourages customers to verify that datasheets are current before placing orders.

Quality Semi-Conductors

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RATING AND CHARACTERISTIC CURVES (S3WB20)

FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

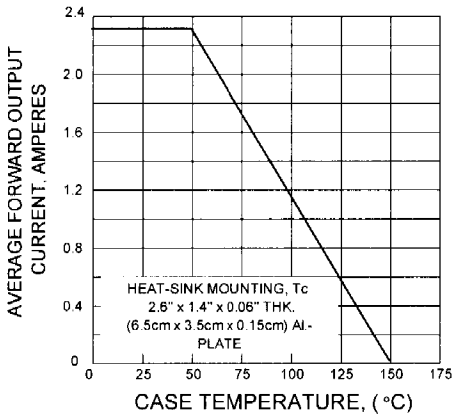


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

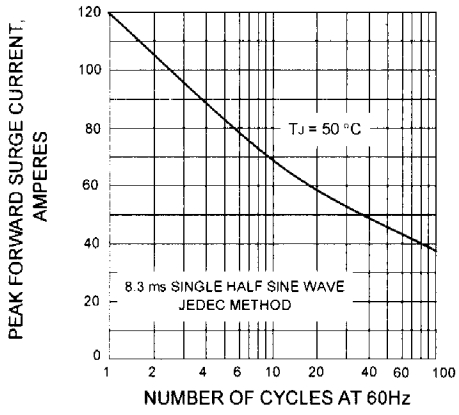
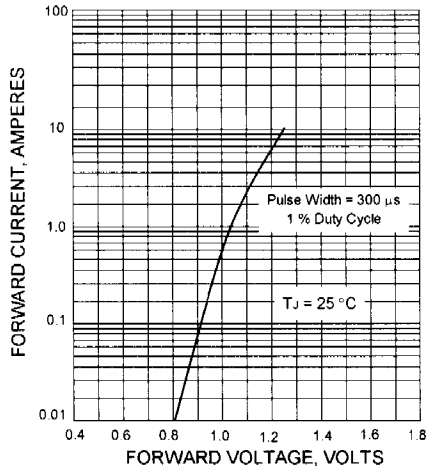


FIG.3 - TYPICAL FORWARD CHARACTERISTICS PER DIODE



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