



SB820D SERIES

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

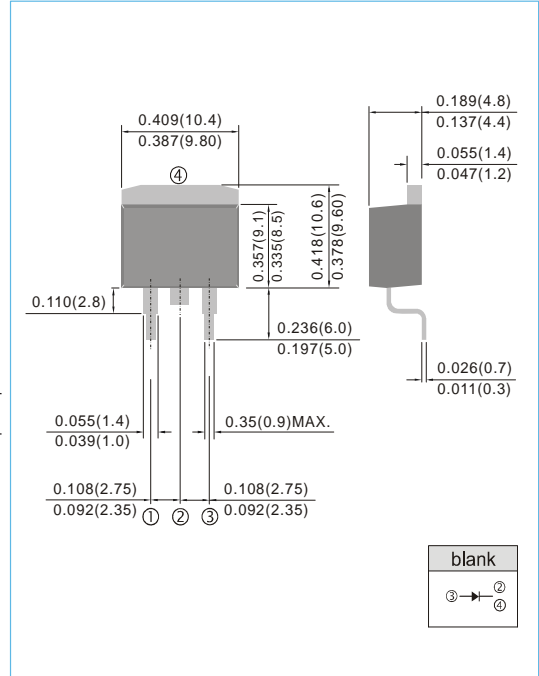
VOLTAGE 20 to 60 Volts **CURRENT** 8 Amperes **TO-263 / D²PAK** Unit : inch(mm)

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound.
- Exceeds environmental standards of MIL-S-19500/228
- Low power loss, high efficiency.
- Low forward voltage, high current capability
- High surge capacity.
- For use in low voltage, high frequency inverters free wheeling, and polarity protection applications.
- In compliance with EU RoHS 2002/95/EC directives

MECHANICAL DATA

- Case: TO-263 / D²PAK molded plastic package
- Terminals: Lead solderable per MIL-STD-750, Method 2026
- Polarity: As marked.
- Mounting Position: Any
- Weight: 0.06 ounces, 1.7 grams.



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings 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%

PARAMETER	SYMBOL	SB820D	SB830D	SB840D	SB850D	SB860D	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	V
Maximum RMS Voltage	V_{RMS}	14	21	28	35	42	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	V
Maximum Average Forward Current at $T_c = 75^\circ\text{C}$	$I_{F(AV)}$	8					A
Peak Forward Surge Current :8.3ms single half sine-wave superimposed on rated load(JEDEC method)	I_{FSM}	150					A
Maximum Forward Voltage at 8.0A	V_F	0.55			0.75		V
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_j = 25^\circ\text{C}$ $T_j = 100^\circ\text{C}$	I_R				0.2 50		mA
Typical Thermal Resistance	$R_{\theta JC}$	3					$^\circ\text{C} / \text{W}$
Operating Junction Temperature Range	T_J	-55 to +125			-55 to +150		$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150					$^\circ\text{C}$

NOTE:

Both Bonding and Chip structure are available.



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RATING AND CHARACTERISTIC CURVES

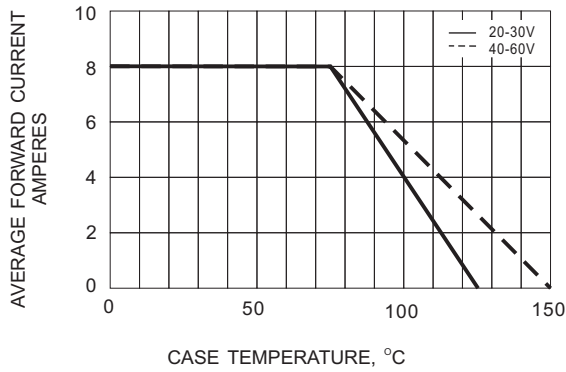


Fig.1- FORWARD CURRENT DERATING CURVE

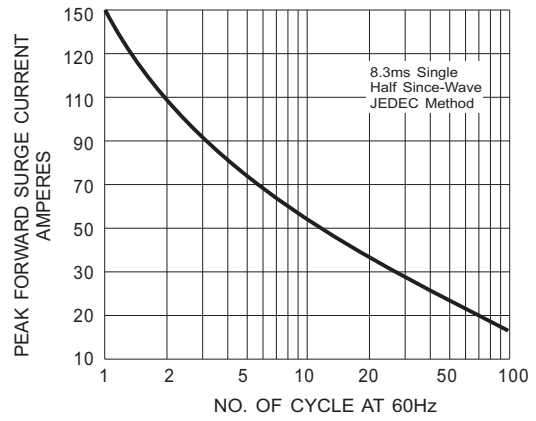


Fig.2- MAXIMUM NON - REPETITIVE SURGE CURRENT

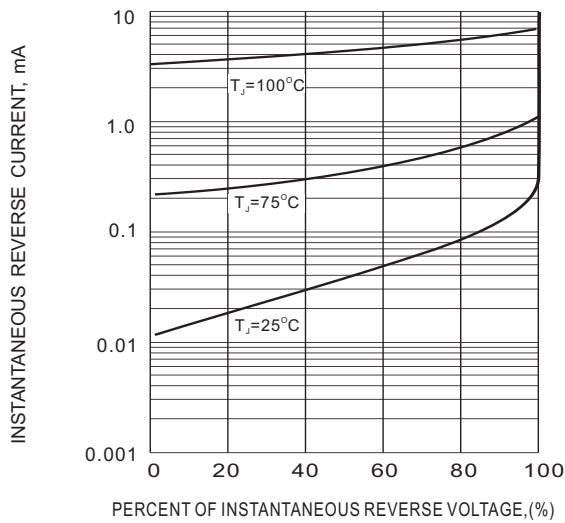


Fig.3- TYPICAL REVERSE CHARACTERISTIC

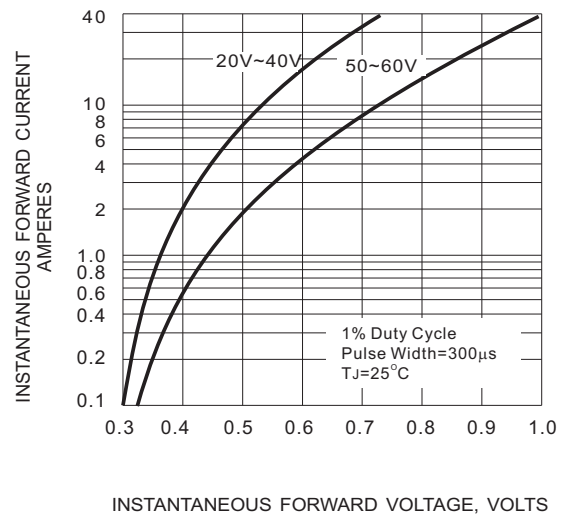
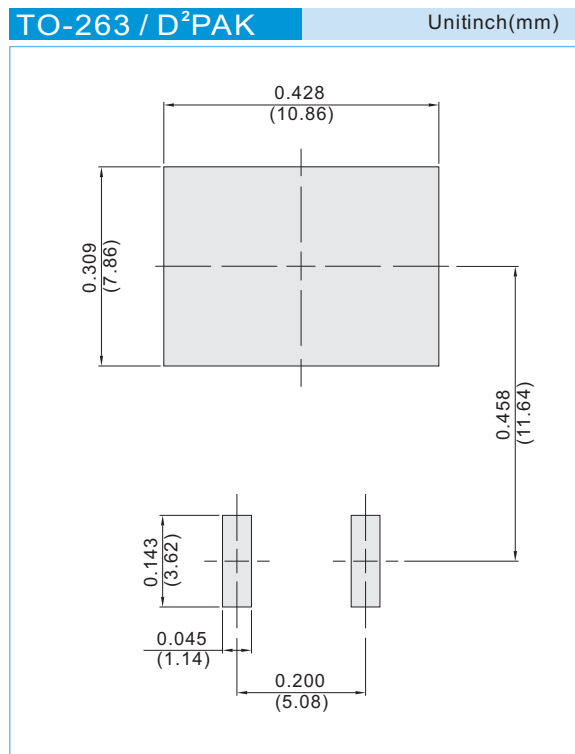


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC



SB820D SERIES

MOUNTING PAD LAYOUT



ORDER INFORMATION

- Packing information
T/R - 0.8K per 13" plastic Reel

LEGAL STATEMENT

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