



DATA SHEET

SB1020DC~SB10150DC

D²PAK SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

VOLTAGE 20 to 150 Volts **CURRENT** 10 Amperes

TO-263 / D²PAK Unit: inch (mm)

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O. 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.
- Pb free product are available : 99% Sn above can meet Rohs environment substance directive request

MECHANICAL DATA

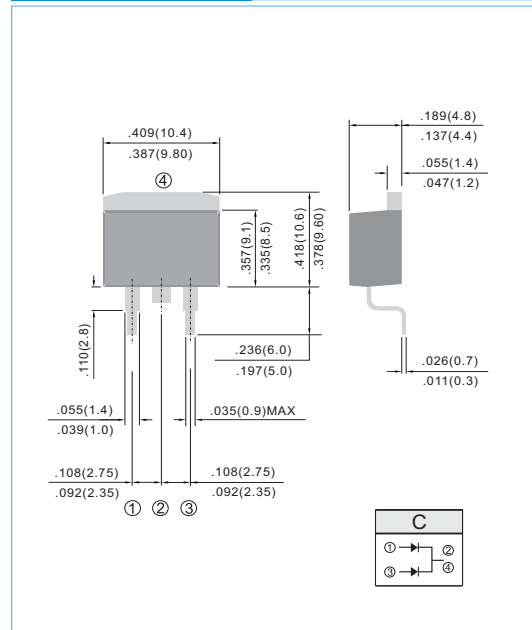
Case: D²PAK Molded plastic

Terminals: Solder plated, solderable per MIL-STD-202G, Method 208

Polarity: As marked.

Standard packaging: 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	SB1020DC	SB1030DC	SB1040DC	SB1045DC	SB1050DC	SB1060DC	SB1080DC	SB10100DC	SB10150DC	UNITS	
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	20	30	40	45	50	60	80	100	150	V	
Maximum RMS Voltage	V _{RMS}	14	21	28	31.5	35	42	56	70	105	V	
Maximum DC Blocking Voltage	V _{DC}	20	30	40	45	50	60	80	100	150	V	
Maximum Average Forward Current .375"(9.5mm) lead length at T _c =100°C	I _{AV}	10									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 5.0A, per leg	V _F	0.55			0.75		0.85		0.92		V	
Maximum DC Reverse Current TA=25°C at Rated DC Blocking Voltage TA=100°C	I _R					0.5						mA
Typical Thermal Resistance	R _{θJC}					3.0						°C / W
Operating Junction and Storage Temperature Range	T _J , T _{STG}					-50 TO +125						°C



RATING AND CHARACTERISTIC CURVES

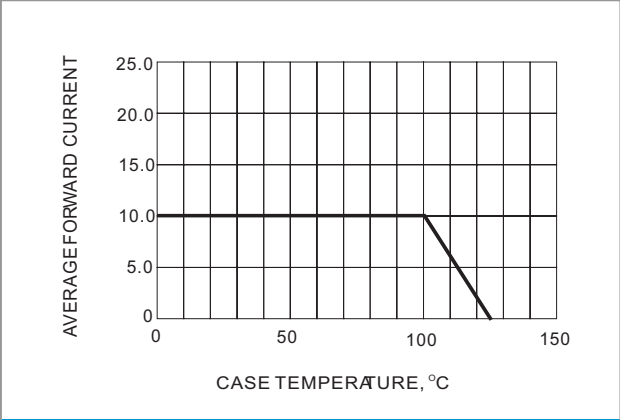


Fig. 1- FORWARD CURRENT DERATING CURVE

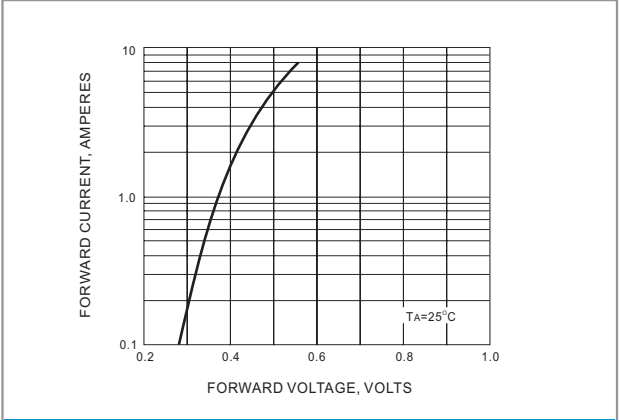


Fig. 2- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

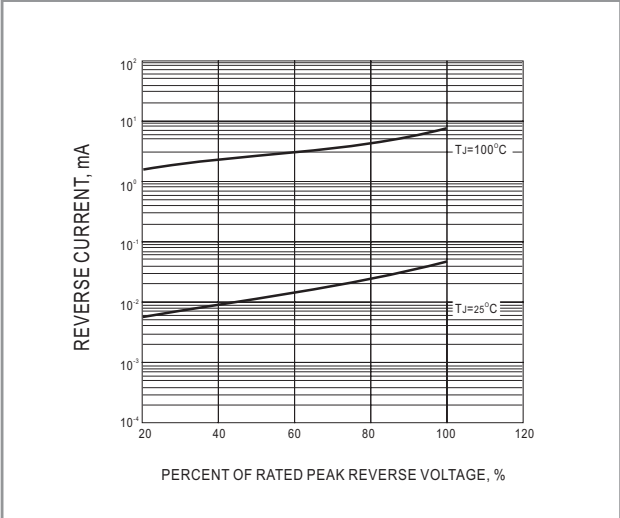


Fig. 3- TYPICAL REVERSE CHARACTERISTIC

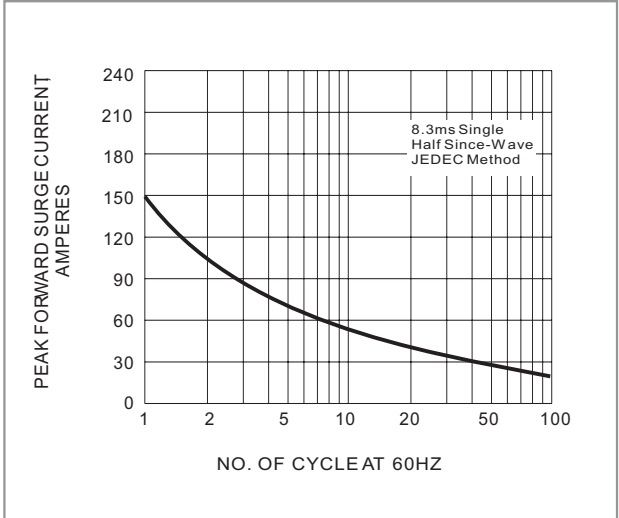


Fig. 4- TMAXIMUM NON - REPETITIVE SURGE CURRENT