



DATA SHEET

SB1020DC~SB10100DC

D²PAK SURFACT SCHOTTKY BARRIER RECTIFIERS
VOLTAGE 20 to 100 Volts CURRENT - 10 Ampere

TO-263 / D²PAK

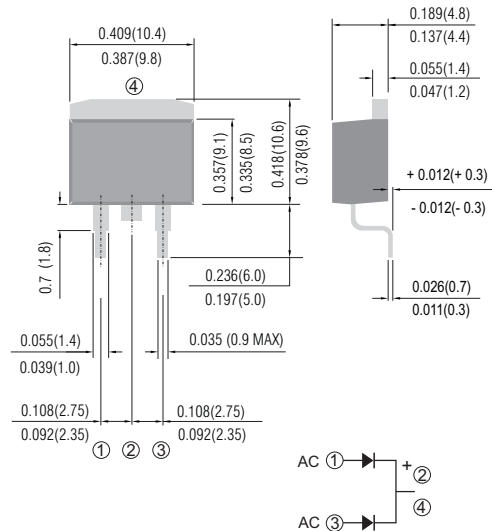
Unit: inch (mm)

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.

MECHANICAL DATA

Case: D²PAK/TO-263 molded plastic package
Terminals: Lead solderable per MIL-STD-202, Method 208
Polarity: As marked.
Mounting Position: Any
Weight: 0.06 ounces, 1.7grams.



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%

	SB1020DC	SB1030DC	SB1040DC	SB1050DC	SB1060DC	SB1080DC	SB10100DC	UNITS
Maximum Recurrent Peak Reverse Voltage	20	30	40	50	60	80	100	V
Maximum RMS Voltage	14	21	28	35	42	56	70	V
Maximum DC Blocking Voltage	20	30	40	50	60	80	100	V
Maximum Average Forward Rectified Current at Tc=100°C	10.0							A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	150							A
Maximum Forward Voltage at 5.0A per element	0.55		0.75		0.85		V	
Maximum DC Reverse Current at Tc=25°C	0.5							mA
DC Blocking Voltage per element Tc=100°C	50							
Typical Thermal Resistance Note RθJA	60							°C/W
Operating and Storage Temperature Range	-50 to +125							°C

NOTES:

1. Thermal Resistance Junction to Ambient .



RATING AND CHARACTERISTIC CURVES

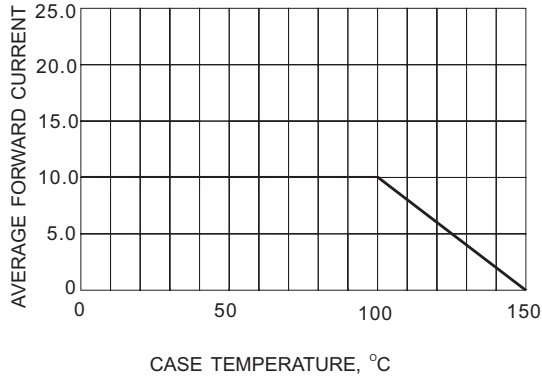


Fig.1- FORWARD CURRENT DERATING CURVE

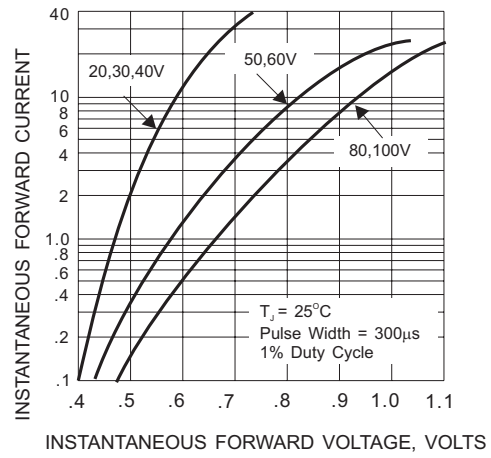


Fig.2- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

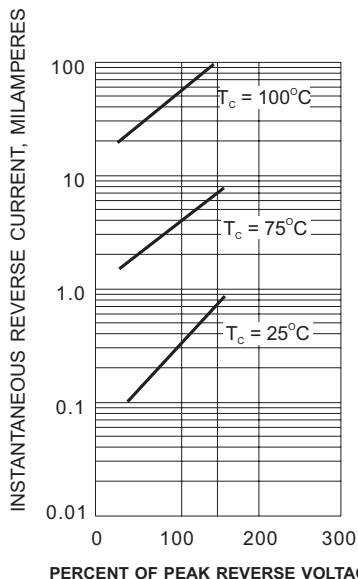


Fig.3- TYPICAL REVERSE CHARACTERISTIC

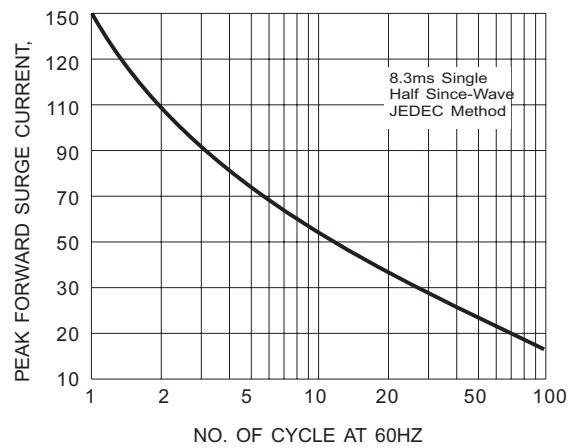


Fig.4- MAXIMUM NON-REPETITIVE SURGE CURRENT

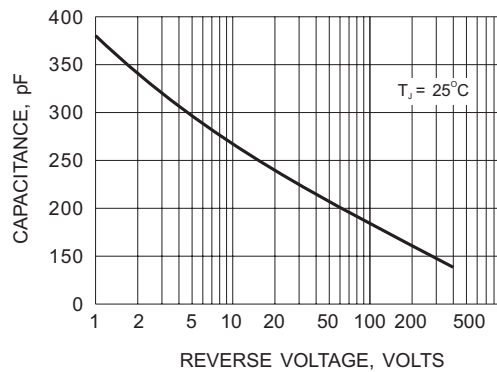


Fig.5- TYPICAL JUNCTION CAPACITANCE