



# DATA SHEET

## SB820DC ~ SB8100DC

**D<sup>2</sup>PAK SURFACE MOUNTSCHOTTKY BARRIER RECTIFIER**  
**VOLTAGE- 20 to 100 Volts CURRENT - 8.0 Amperes**

### 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 leakage current, high current capability.
- High surge capacity.
- For use in low voltage, high frequency inverters free wheeling, and polarity protection applications.

### MECHANICAL DATA

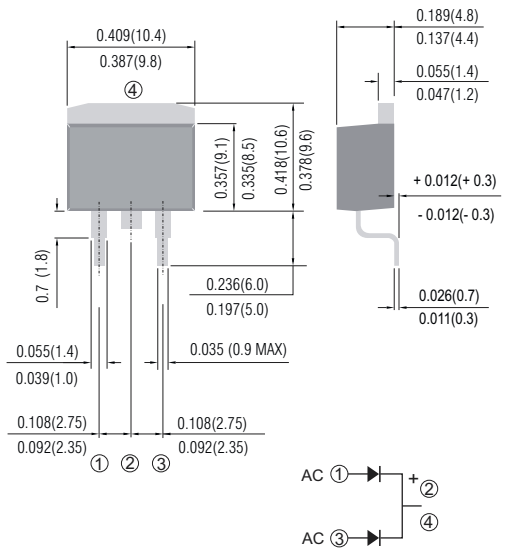
Case: D<sup>2</sup> PAK/TO-263 molded plastic  
Terminals:Solder plated, solderable per MIL-STD-202, Method 208  
Polarity: As marked.  
Standard packaging: Any  
Weight: 0.06 ounces, 1.7 grams.

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.  
Single phase , half wave ,60Hz, resistive or inductive load.  
For capacitive load , derate current by 20%.

### TO-263 / D<sup>2</sup>PAK

Unit: inch ( mm )

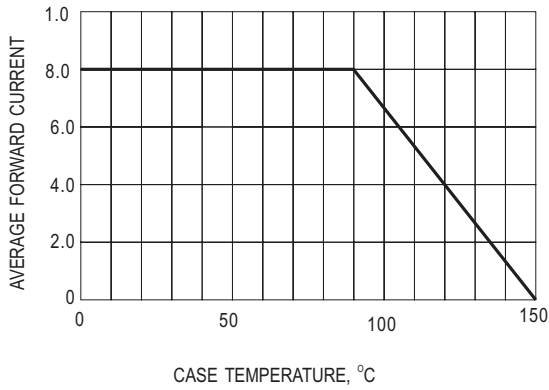


	SB820DC	SB830DC	SB840DC	SB850DC	SB860DC	SB880DC	SB8100DC	UNITS
Maximum Recurrent Peak Reverse Voltage	20	30	40	50	60	80	100	V
Maximum RMS Voltage	14	21	28	35	42	56	70	V
Maximum DC Blocking Voltage	20	30	40	50	60	80	100	V
Maximum Average Forward Rectified Current at Ta=100°C	8.0							A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	75.0							A
Maximum Instantaneous Forward Voltage at 4.0A per element	0.55		0.75		0.85		V	
Maximum DC Reverse Current (Note 1) Ta= 25°C at Rated DC Blocking Voltage Ta=100°C	0.5 50.0							mA
Typical thermal Resistance NOTE RθJA	60.0							°C/W
Operating and Storage Temperature Range Tj	-50 to +150							°C

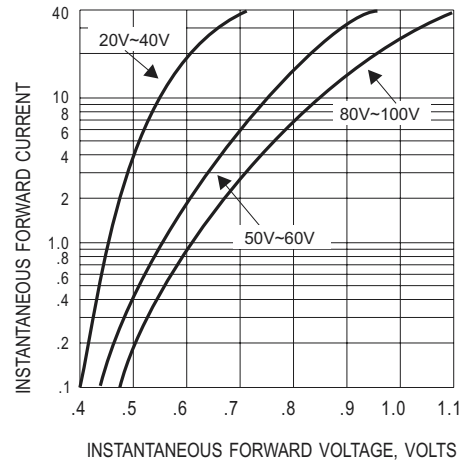
NOTES:  
Thermal Resistance to Ambient.



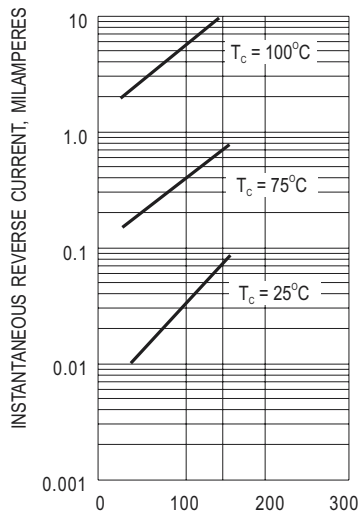
**RATING AND CHARACTERISTIC CURVES**



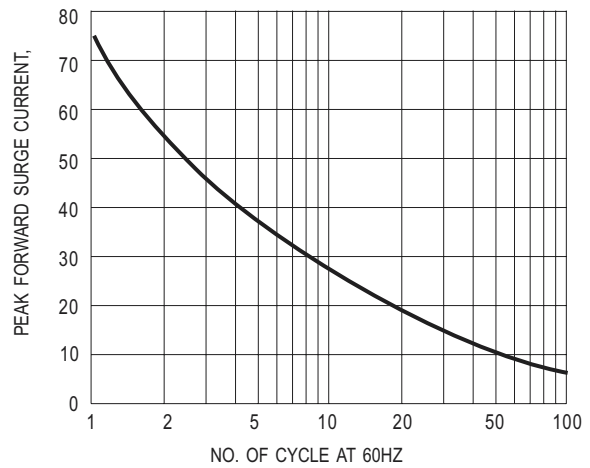
**Fig.1- FORWARD CURRENT DERATING CURVE**



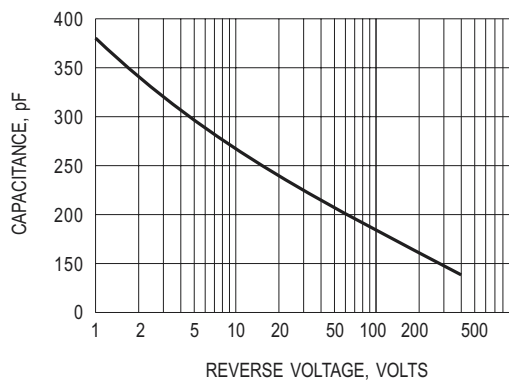
**Fig.2- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC**



**Fig.3- TYPICAL REVERSE CHARACTERISTIC**



**Fig.4- MAXIMUM NON-REPETITIVE SURGE CURRENT**



**Fig.5- TYPICAL JUNCTION CAPACITANCE**