

# SB820D THRU SB8100D

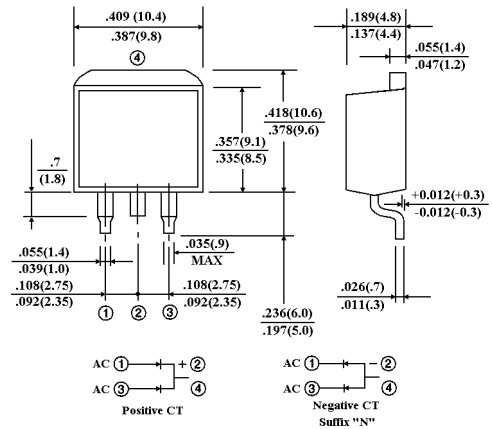
## D<sup>2</sup>PAK SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

VOLTAGE - 20 to 100 Volts CURRENT - 8.0 Amperes

### 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

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



Dimensions in inches and (millimeters)

### MECHANICAL DATA

Case: D<sup>2</sup>PAK/TO-263 molded plastic

Terminals: Leads, solderable per MIL-STD-202, Method 208

Polarity: As marked

Mounting Position: Any

Weight: 0.06 ounce, 1.7 gram

### 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%.

	SB820D	SB830D	SB840D	SB850D	SB860D	SB880D	SB8100D	UNITS
Maximum Recurrent Peak Reverse Voltage	20	30	40	50	60	80	100	V
Maximum RMS Voltage	14	21	26	35	42	56	80	V
Maximum DC Blocking Voltage	20	30	40	50	60	80	100	V
Maximum Average Forward Rectified Current at T <sub>C</sub> =100 °C	8.0							A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	150							A
Maximum Forward Voltage at 8.0A per element	0.55		0.75		0.85			V
Maximum DC Reverse Current at T <sub>C</sub> =25 °C	0.5							mA
DC Blocking Voltage per element T <sub>C</sub> =100 °C	50							
Typical Thermal Resistance(Note) R <sub>θJKJA</sub>	60							°C/W
Operating and Storage Temperature Range T <sub>J</sub>	-50 to +150							°C

### NOTES:

Thermal Resistance Junction to Ambient.

RATING AND CHARACTERISTIC CURVES  
 SB820D THRU SB8100D

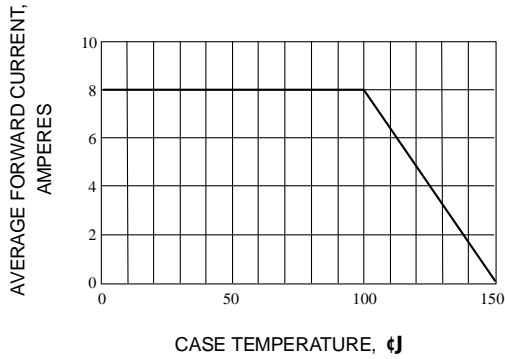


Fig. 1-FORWARD CURRENT DERATING CURVE

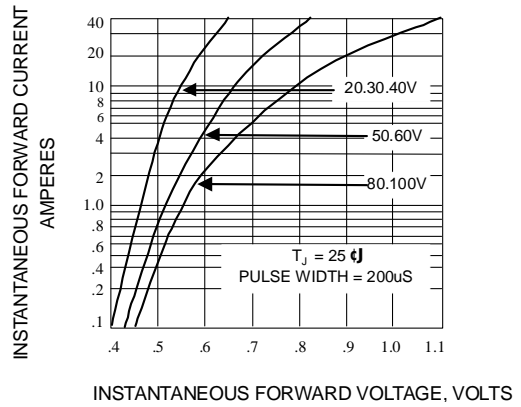


Fig. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

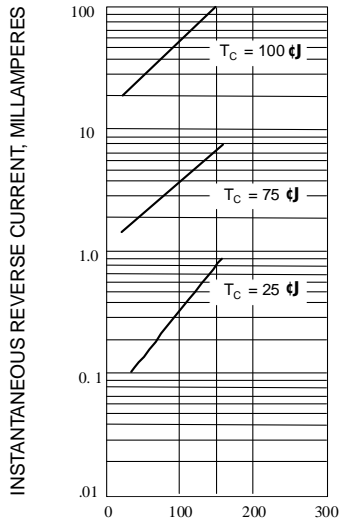


Fig. 3-TYPICAL REVERSE CHARACTERISTICS

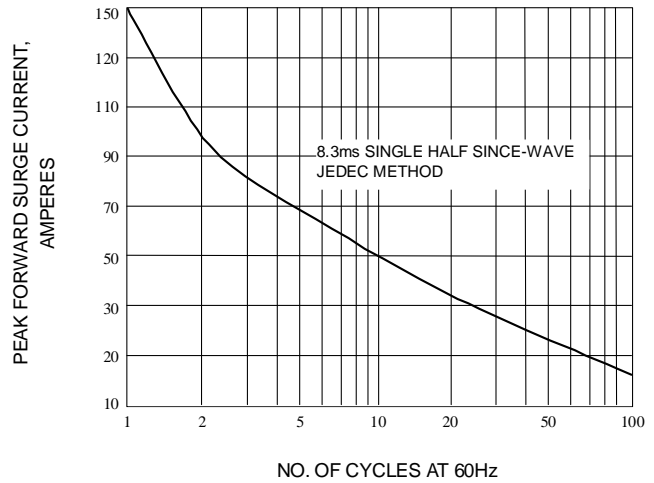


Fig. 4-MAXIMUM NON-REPETITIVE SURGE CURRENT

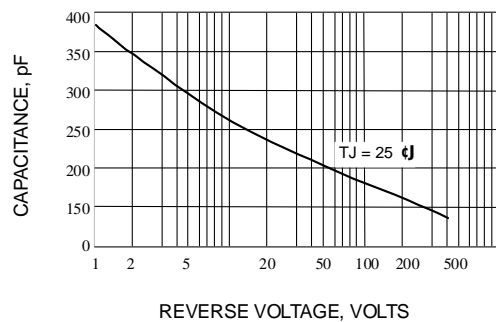


Fig. 5-TYPICAL JUNCTION CAPACITANCE