

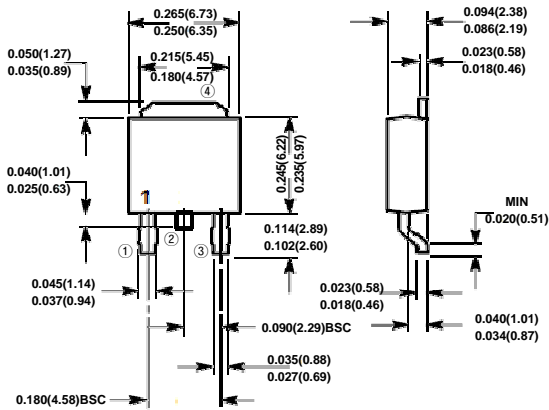


# SB820D THRU SB8200D

## DPAK SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 and 200 Volts Forward Current - 8.0 Ampere

### TO-252(DPAK)



Dimensions in inches and (millimeters)



### FEATURES

- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◆ For surface mounted applications
- ◆ Low profile package
- ◆ Built-in strain relief
- ◆ Low power loss, High efficiency
- ◆ High surge capacity
- ◆ For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- ◆ High temperature soldering guaranteed: 260°C/10 seconds at terminals

### MECHANICAL DATA

Case: TO-252(DPAK), Molded plastic.

Terminals: Solderable per MIL-STD-750 - Method 2026

Standard Packaging : 16mm tape (EIA-481)

Polarity: As marked.

Weight: 0.015 ounces, 0.4grams.

### 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 current derate by 20%.

PARAMETER	SYMBOLS	SB 820D	SB 830D	SB 840D	SB 850D	SB 860D	SB 880D	SB 8100D	SB 8150D	SB 8200D	UNITS	
Maximum repetitive peak reverse voltage	$V_{RRM}$	20	30	40	50	60	80	100	150	200	Volts	
Maximum RMS voltage	$V_{RMS}$	14	21	28	35	42	56	70	105	140	Volts	
Minimum DC Breakdown Voltage	$V_{DC}$	20	30	40	50	60	80	100	150	200	Volts	
Average Rectified current	$I_{F(AV)}$	8.0									Amp	
Non-repetitive Peak Forward Surge Current at 1=8.3ms half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	85									Amps	
Maximum Forward Voltage at $I_F=8.0A$	$V_F$	0.55			0.75		0.85		0.90		Volts	
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_J=25^\circ C$ $T_J=125^\circ C$	$I_R$	0.2					20		0.1		$mA$	
Typical Thermal Resistance	$R_{\theta JA}$ $R_{\theta JC}$	80						5				$^\circ C/W$
Operating Junction Temperature Range	$T_J$	-55 to +125							-55 to +150		$^\circ C$	
Storage Temperature Range	$T_{STG}$	-65 to +175									$^\circ C$	



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## RATINGS AND CHARACTERISTIC CURVES

FIG. 1- FORWARD CURRENT DERATING CURVE

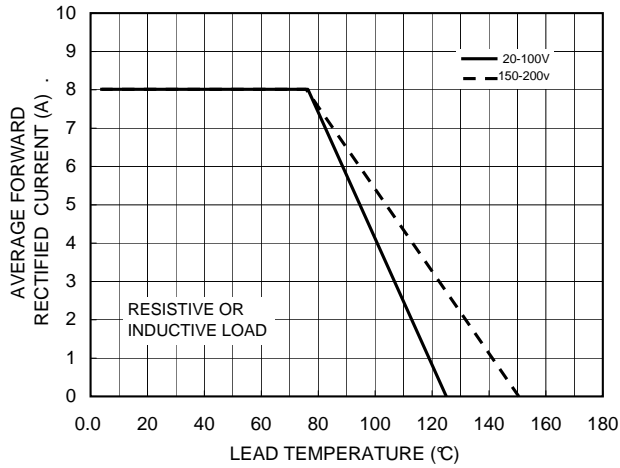


FIG. 2-TYPICAL FORWARD SURGE CHARACTERISTICS

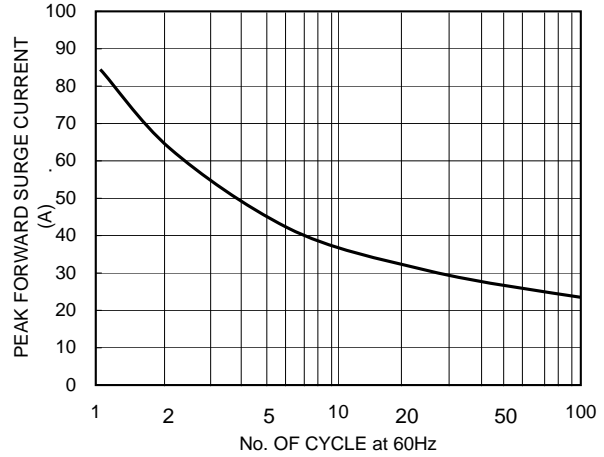


FIG. 3-TYPICAL REVERSE CHARACTERISTICS

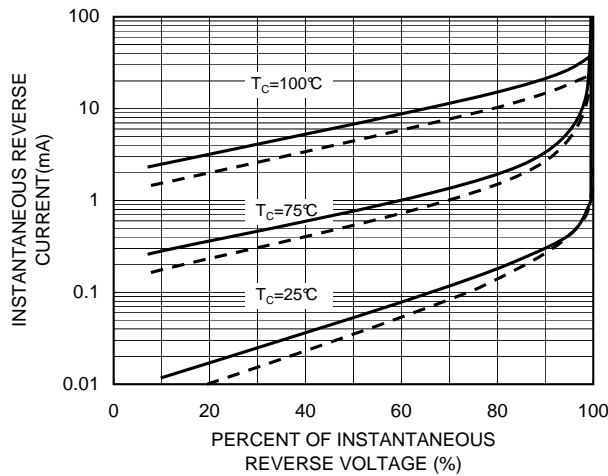


FIG. 4-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

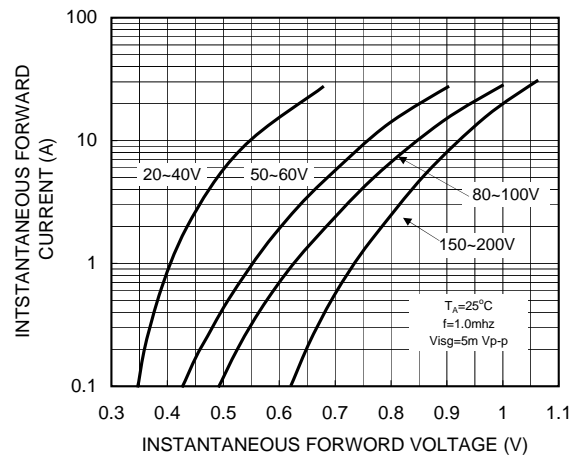


FIG. 5-TYPICAL JUNCTION CAPACITANCE

