

### SCHOTTKY BARRIER RECTIFIERS

VOLTAGE RANGE: 70 --- 100 V  
CURRENT: 2.0 A

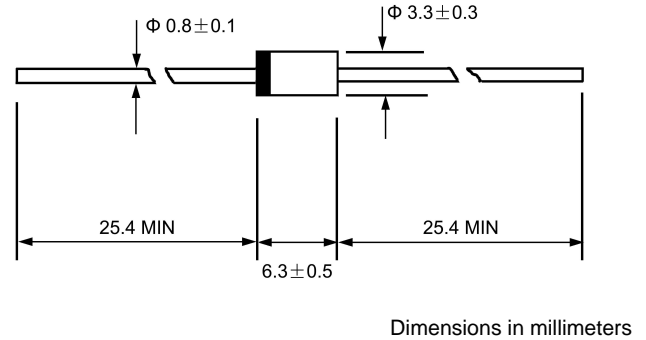
#### FEATURES

- ◇ Metal-Semiconductor junction with guard ring
- ◇ Epitaxial construction
- ◇ Low forward voltage drop, low switching losses
- ◇ High surge capability
- ◇ For use in low voltage, high frequency inverters free wheeling, and polarity protection applications
- ◇ The plastic material carries U/L recognition 94V-0

#### MECHANICAL DATA

- ◇ Case: JEDEC DO--15, molded plastic
- ◇ Terminals: Axial lead, solderable per MIL- STD-750, Method 2026
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.014 ounces, 0.39 grams
- ◇ Mounting position: Any

#### DO - 15



#### 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 by 20%.

		SB270	SB280	SB290	SB2A0	UNITS
Maximum recurrent peak reverse voltage	$V_{RRM}$	70	80	90	100	V
Maximum RMS voltage	$V_{RMS}$	49	56	63	70	V
Maximum DC blocking voltage	$V_{DC}$	70	80	90	100	V
Maximum average forward rectified current 9.5mm lead length, @ $T_A=75^\circ C$	$I_{F(AV)}$	2.0				A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @ $T_J=125^\circ C$	$I_{FSM}$	50				A
Maximum instantaneous forward voltage @ 2.0A (Note 1)	$V_F$	0.85 0.69				V
Maximum reverse current @ $T_A=25^\circ C$ at rated DC blocking voltage @ $T_A=100^\circ C$	$I_R$	0.5 20.0				mA
Typical junction capacitance (Note2)	$C_J$	250				pF
Typical thermal resistance (Note3)	$R_{\theta JA}$	20				°C/W
Operating junction temperature range	$T_J$	- 55 ---- + 150				°C
Storage temperature range	$T_{STG}$	- 55 ---- + 150				°C

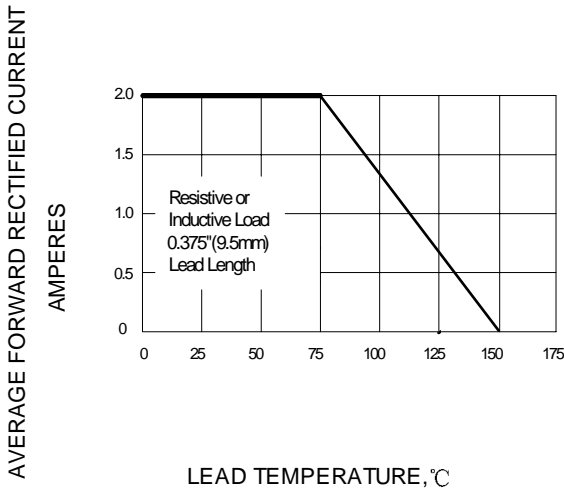
NOTE: 1. Pulse test: 300us pulse width, 1% duty cycle.

2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

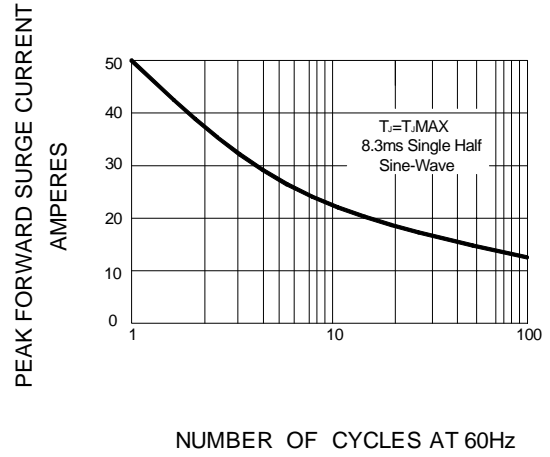
3. Thermal resistance junction to ambient

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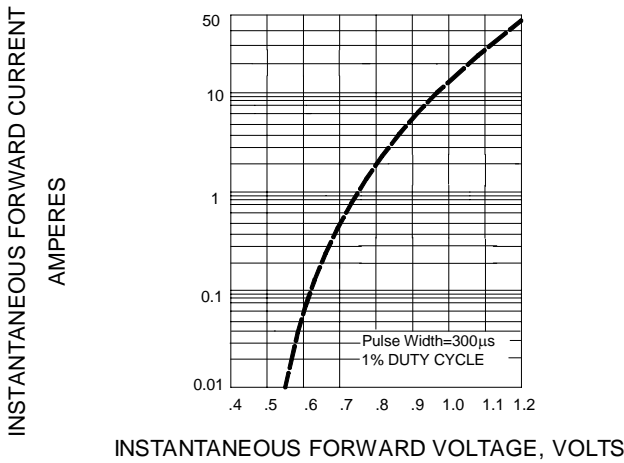
**FIG.1 -- FORWARD CURRENT DERATING CURVE**



**FIG.2 -- PEAK FORWARD SURGE CURRENT**



**FIG.3 -- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG.4 -- TYPICAL JUNCTION CAPACITANCE**

