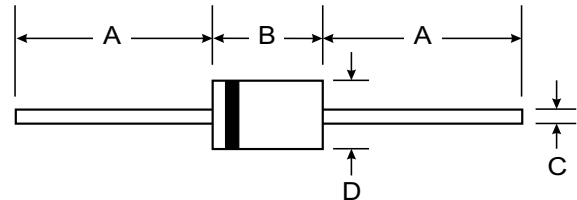
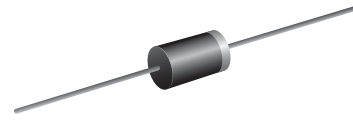


**VOLTAGE RANGE: 90 - 100V**  
**CURRENT: 2.0 A**

### Features

- Schottky Barrier Chip
- Guard Ring Die Construction for Transient Protection
- High Current Capability
- Low Power Loss, High Efficiency
- High Surge Current Capability
- For Use in Low Voltage, High Frequency Inverters, Free Wheeling, and Polarity Protection Applications



### Mechanical Data

- Case: DO-15, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.40 grams (approx.)
- Mounting Position: Any
- Marking: Type Number

DO-15		
Dim	Min	Max
A	25.40	—
B	5.50	7.62
C	0.686	0.889
D	2.60	3.60
All Dimensions in mm		



### Maximum Ratings and Electrical Characteristics T<sub>A</sub> = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Parameter	Symbol	SB2H90	SB2H100	Unit
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	90	100	V
Working Peak Reverse Voltage	V <sub>RWM</sub>	90	100	V
Maximum DC blocking voltage	V <sub>DC</sub>	90	100	V
Maximum average forward rectified current at T <sub>A</sub> = 25°C	I <sub>F(AV)</sub>	2.0		A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	75		A
Peak repetitive reverse surge current at t <sub>p</sub> = 2.0μs, 1KHz	I <sub>RRM</sub>	1.0		A
Critical rate of rise of reverse voltage	dv/dt	10,000		V/μs
Typical thermal resistance <sup>(2)</sup>	R <sub>θJA</sub> R <sub>θJL</sub>	45 14		°C/W
Storage temperature range	T <sub>STG</sub>	-55 to +175		°C
Maximum operating junction temperature	T <sub>J</sub>	+175		°C

### Electrical Characteristics (T<sub>A</sub> = 25°C unless otherwise noted)

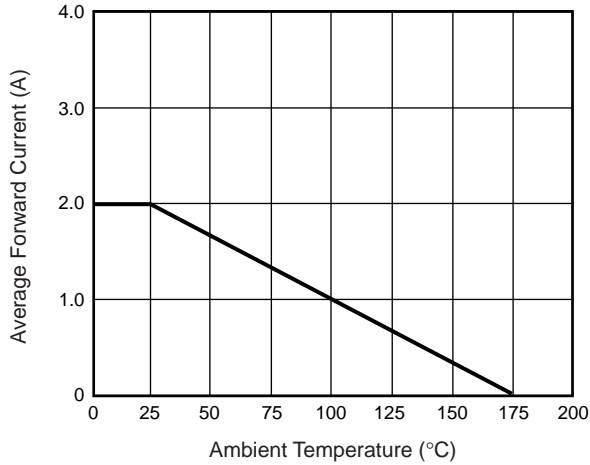
Max. instantaneous forward voltage <sup>(1)</sup>	I <sub>F</sub> = 2A, T <sub>J</sub> = 25°C I <sub>F</sub> = 2A, T <sub>J</sub> = 125°C	V <sub>F</sub>	0.79 0.65	V
Maximum DC reverse current at rated DC blocking voltage	T <sub>J</sub> = 25°C T <sub>J</sub> = 125°C	I <sub>R</sub>	10 4	μA mA

**Notes:** (1) Pulse test: 300μs pulse width, 1% duty cycle  
(2) P.C.B. mounted with 0.2 x 0.2" (5.0 x 5.0mm) copper pad areas

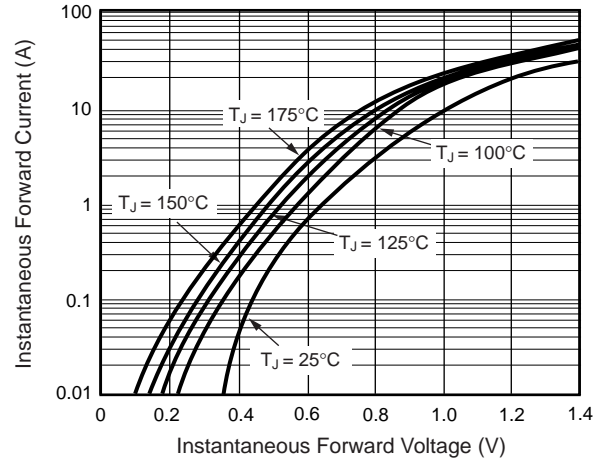


**Ratings and Characteristic Curves** ( $T_A = 25^\circ\text{C}$  unless otherwise noted)

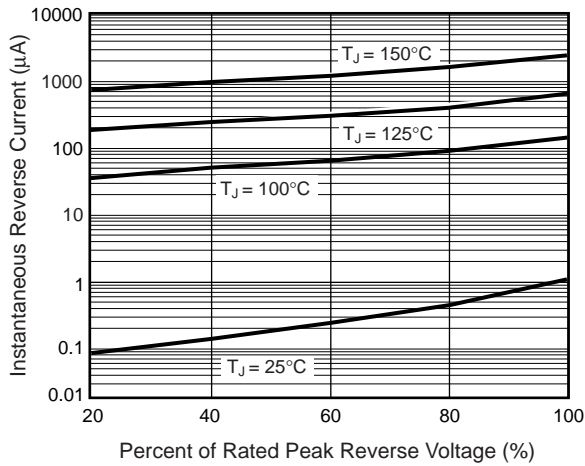
**Fig. 1 – Forward Current Derating Curve**



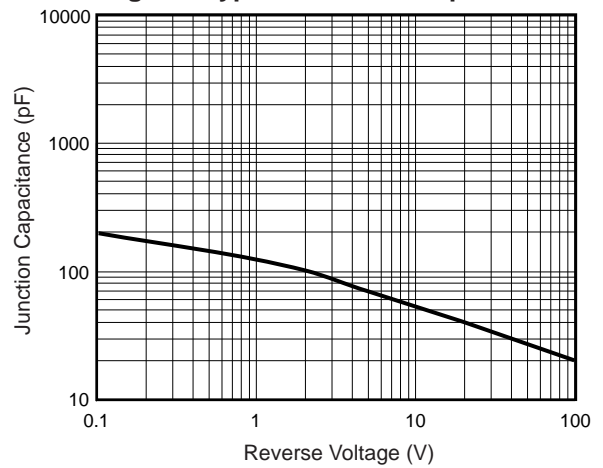
**Fig. 2 – Typical Instantaneous Forward Characteristics**



**Fig. 3 – Typical Reverse Characteristics**



**Fig. 4 – Typical Junction Capacitance**



**Fig. 5 - Typical Transient Thermal Impedance**

