

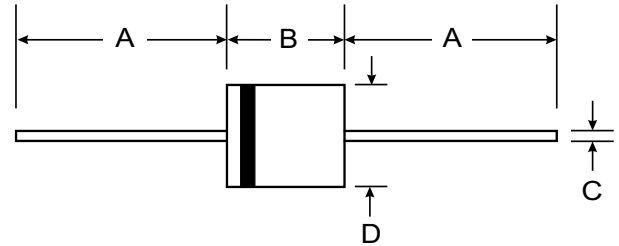
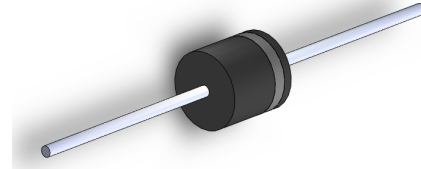
**VOLTAGE RANGE: 35-100V**  
**CURRENT: 15.0 A**

### 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: R-6, Molded Plastic
- Terminals: Axial Leads, Solderable per MIL-STD-202 Method 208
- Polarity: Color Band Denotes Cathode
- Weight: 1.7 grams (approx.)
- Mounting Position: Any



R-6		
Dim	Min	Max
A	25.4	—
B	8.6	9.1
C	1.2	1.3
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%.

Characteristic	Symbol	SB1535	SB1545	SB1550	SB1560	SB1580	SB15100	Unit
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	35	45	50	60	80	100	V
Max RMS voltage	V <sub>RMS</sub>	35	45	50	60	80	100	V
Maximum DC blocking voltage	V <sub>DC</sub>	35	45	50	60	80	100	V
Maximum average forward rectified current 0.375" (9.5mm) lead length (See fig. 1)	I <sub>F(AV)</sub>	15.0						A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM1</sub>	300						A
Thermal resistance, junction to ambient	R <sub>θJA</sub>	40						°C/W
Maximum instantaneous forward voltage at 15.0A	V <sub>F</sub>	0.55	0.60	0.70	0.90		V	
Maximum DC reverse current T <sub>A</sub> = 25°C	I <sub>R</sub>	200						uA
Maximum DC reverse current T <sub>A</sub> = 100°C	I <sub>R</sub>	80						mA
Typical junction capacitance at 4.0V, 1MHz	C <sub>J</sub>	500			380		PF	
Operating storage temperature range	T <sub>J</sub>	-65 to +200						°C
and storage temperature range	T <sub>STG</sub>	-65 to +200						°C

### Characteristic Curves (TA = 25 C unless otherwise noted)

Fig. 1 Forward Current Derating Curve

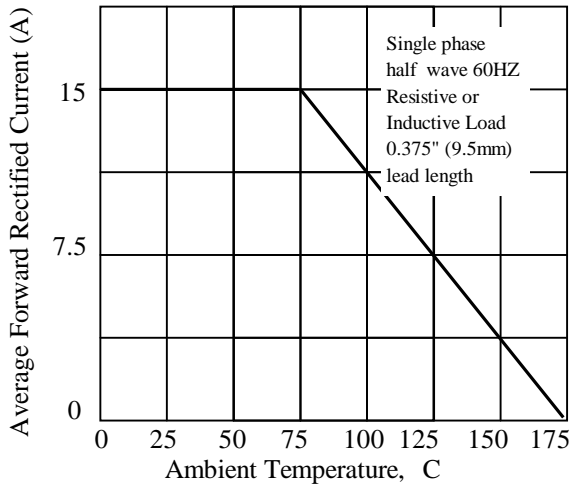


Fig. 2 Maximum Non-repetitive Peak Forward Surge Current

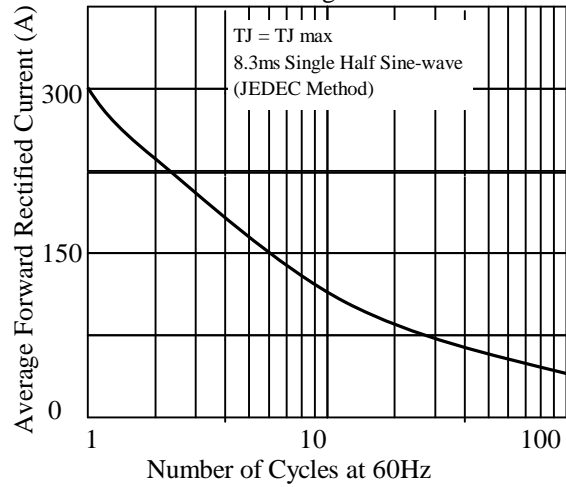


Fig. 3. Typical Instantaneous Forward Characteristics

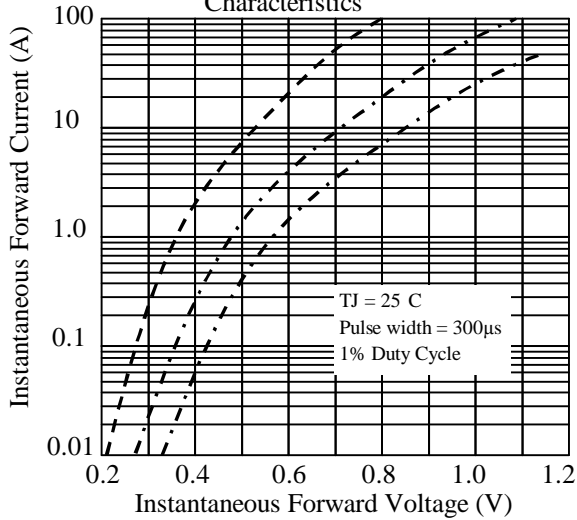


Fig. 4. Typical Reverse Characteristics

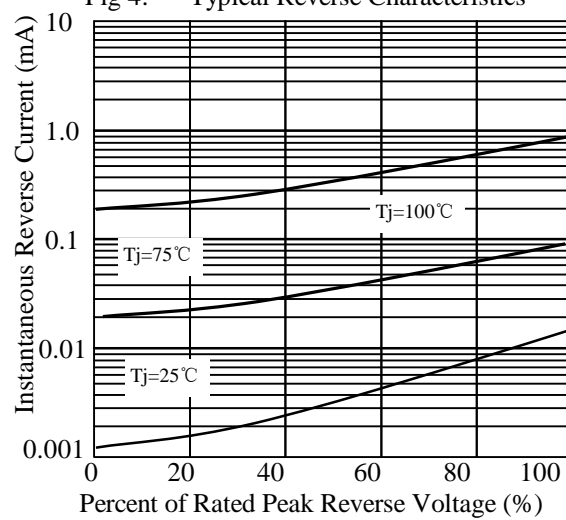


Fig 5. typical transient thermal impedance

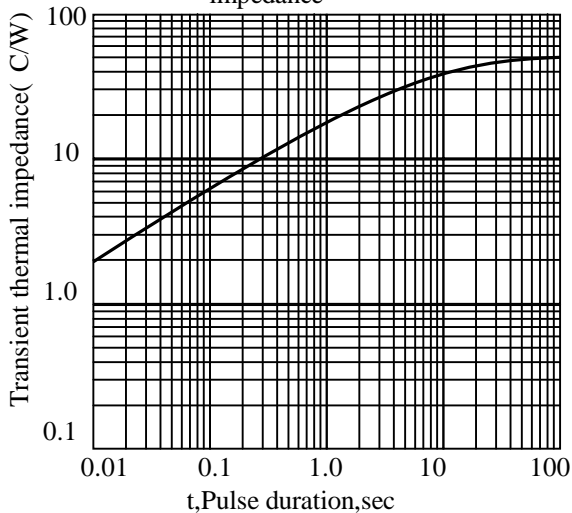


Fig 6. Typical Junction Capacitance

