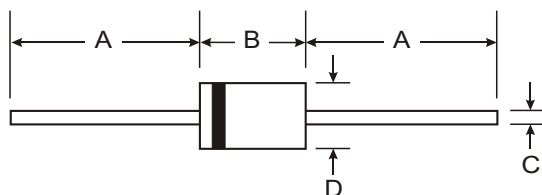


Features

- Epitaxial Construction
- Guard Ring Die Construction for Transient Protection
- Low Power Loss, High Efficiency
- High Surge Capability
- High Current Capability and Low Forward Voltage Drop
- Surge Overload Rating to 150A Peak
- For Use in Low Voltage, High Frequency Inverters, Free Wheeling, and Polarity Protection Applications
- Plastic Material: UL Flammability Classification Rating 94V-0



DO-201AD		
Dim	Min	Max
A	25.40	—
B	7.20	9.50
C	1.20	1.30
D	4.80	5.30
All Dimensions in mm		

Mechanical Data

- Case: Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 1.1 grams (approx.)
- Mounting Position: Any
- Marking: Type Number

Maximum Ratings and Electrical Characteristics @ T_A = 25°C unless otherwise specified

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

Characteristic	Symbol	SB520	SB530	SB540	SB550	SB560	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	20	30	40	50	60	V
RMS Reverse Voltage	$V_{R(RMS)}$	14	21	28	35	42	V
Average Rectified Output Current (See Figure 1) (Note 1)	I_O	5.0					A
Non-Repetitive Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	150					A
Forward Voltage (Note 2) @ $I_F = 5.0A$	V_{FM}	0.55			0.67		V
Peak Reverse Current @ $T_A = 25^{\circ}C$ at Rated DC Blocking Voltage (Note 2) @ $T_A = 100^{\circ}C$	I_{RM}	0.5					mA
		50			25		
Typical Thermal Resistance Junction to Ambient (Note 1) (Note 3)	$R_{\theta JA}$	25					$^{\circ}C/W$
	$R_{\theta JL}$	8					
Operating Temperature Range	T_j	-65 to +125			-65 to +150		$^{\circ}C$
Storage Temperature Range	T_{STG}	-65 to +150					

- Notes:
1. Measured at ambient temperature at a distance of 9.5mm from case.
 2. Short duration test pulse used to minimize self-heating effect.
 3. Thermal resistance junction to lead vertical P.C.B. mounted, 0.375" (9.5mm) lead length.

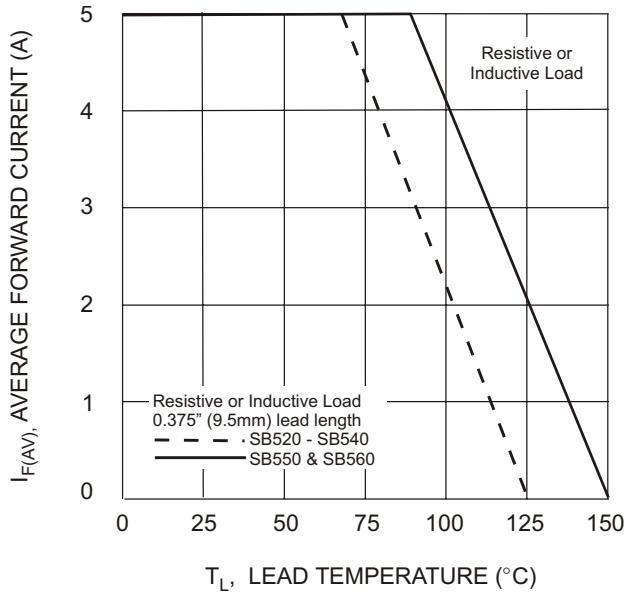


Fig. 1 Forward Current Derating Curve

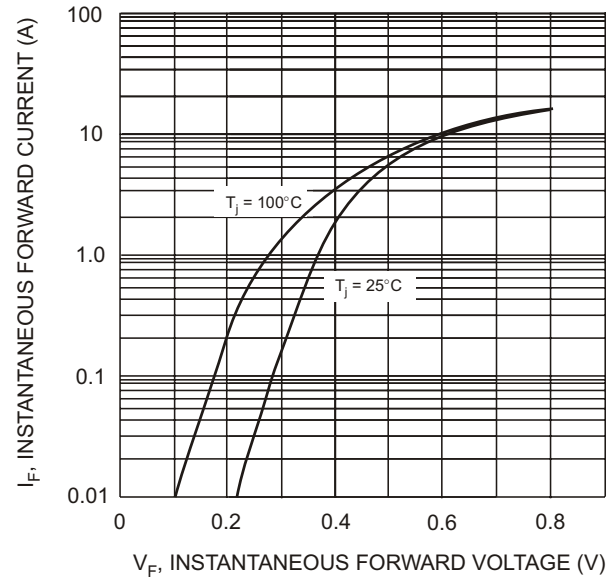


Fig. 2 Typical Forward Characteristics, SB520 - SB540

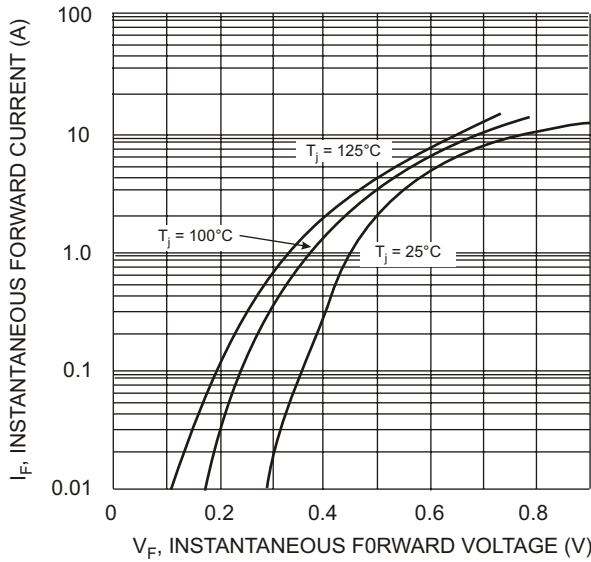


Fig. 3 Typical Forward Characteristics, SB550 & SB560

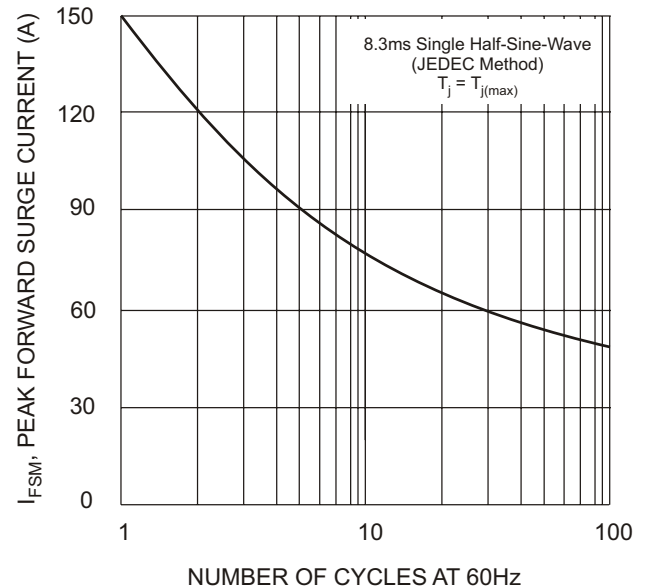


Fig. 4 Max Non-Repetitive Peak Fwd Surge Current

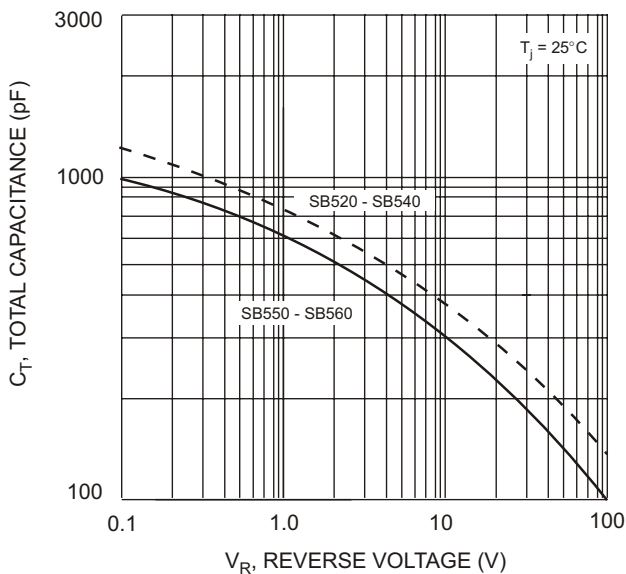


Fig. 5 Typical Total Capacitance

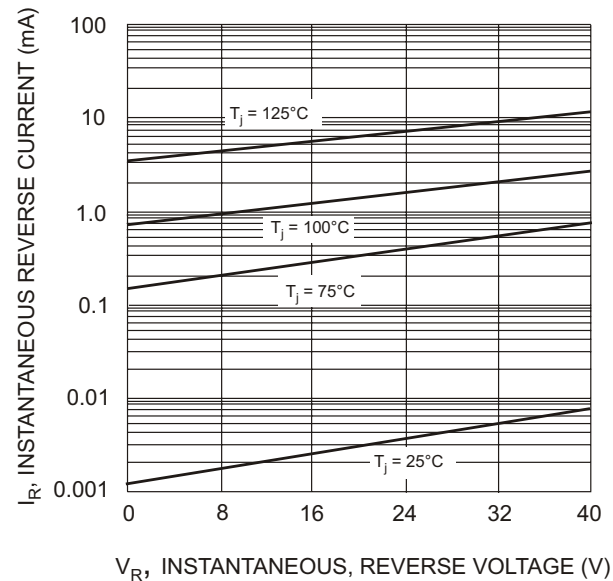


Fig. 6 Typical Reverse Characteristics, SB520 - SB540

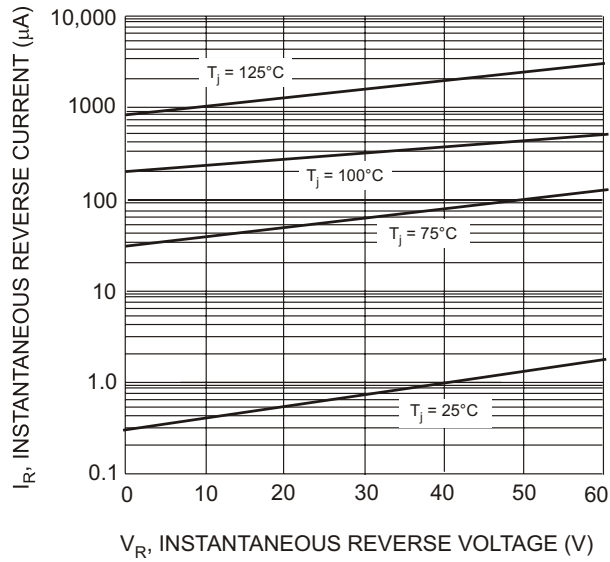


Fig. 7 Typical Reverse Characteristics, SB550 & SB560