

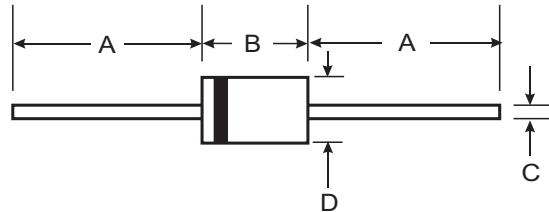
Features

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 80A Peak
 For Use in Low Voltage, High Frequency Inverters, Free
 Wheeling, and Polarity Protection Applications

Lead Free Finish, RoHS Compliant (Note 4)

IEC 61000-4-2 (ESD - 150pF/330)

Contact - 15kV



Mechanical Data

Case: DO-201AD

Case Material: Molded Plastic. UL Flammability Classification
 Rating 94V-0

Moisture Sensitivity: Level 1 per J-STD-020C

Terminals: Finish - Tin. Solderable per MIL-STD-202,
 Method 208 (e3)

Polarity: Cathode Band

Marking: Type Number

Weight: 1.1 grams (approximate)

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		

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	SB320	SB330	SB340	SB350	SB360	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage (Note 2)	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 (Note 1) (See Figure 1)	I_O	3.0					A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I_{FSM}	80					A
Forward Voltage @ $I_F = 3.0A$	V_{FM}	0.50			0.74		V
Peak Reverse Current @ $T_A = 25\text{ }^{\circ}C$ at Rated DC Blocking Voltage (Note 2) @ $T_A = 100\text{ }^{\circ}C$	I_{RM}	0.5					mA
		20			10		
Typical Thermal Resistance (Note 3)	R_{JA}	30					C/W
	R_{JL}	10					
Operating Temperature Range	T_j	-65 to +125			-65 to +150		C
Storage Temperature Range	T_{STG}	-65 to +150					C

- Notes:
1. Measured at ambient temperature at a distance of 9.5mm from the case.
 2. Short duration pulse test used to minimize self-heating effect.
 3. Thermal resistance from junction to lead vertical P.C.B. mounted, 0.500" (12.7mm) lead length with 2.5 x 2.5" (63.5 x 63.5mm) copper pad.
 4. RoHS revision 13.2.2003. High temperature solder exemption applied, see *EU Directive Annex Note 7*.

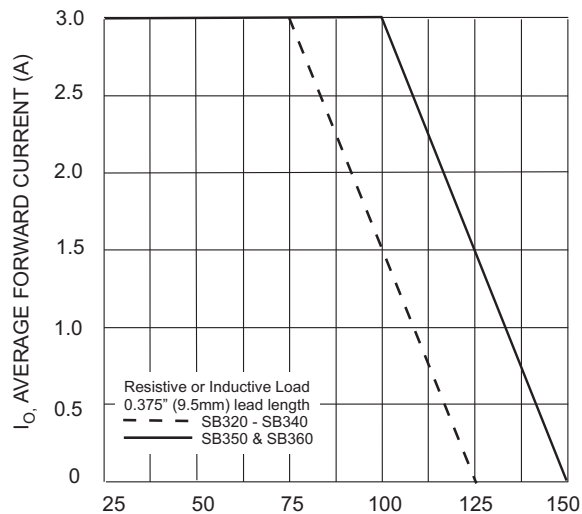


Fig. 1 Forward Current Derating Curve

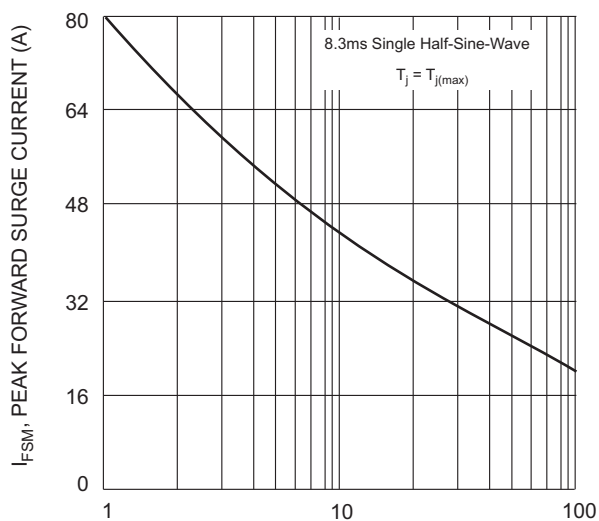


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

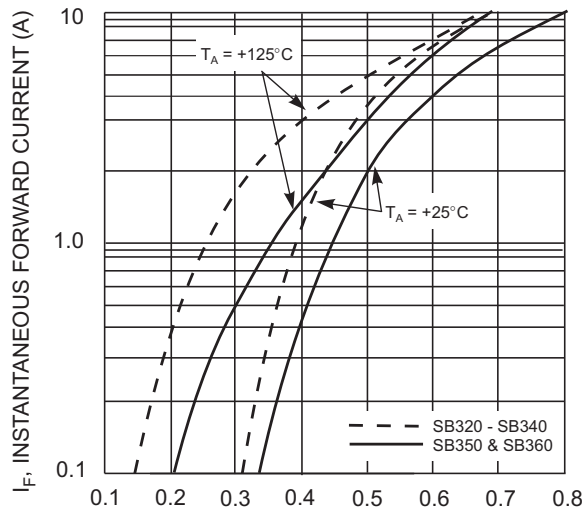


Fig. 2 Typical Forward Characteristics

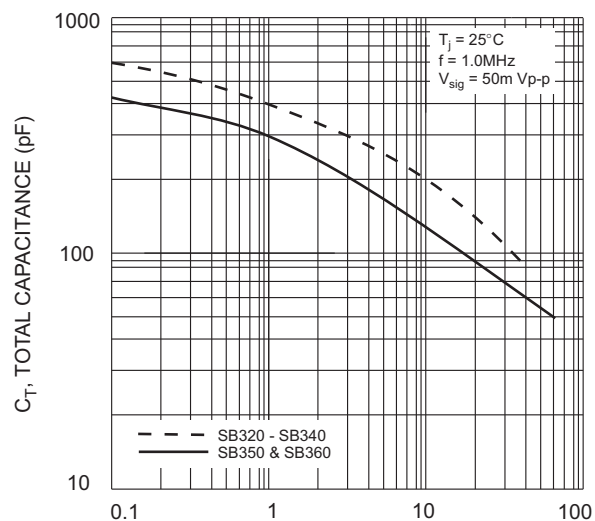


Fig. 4 Typical Total Capacitance

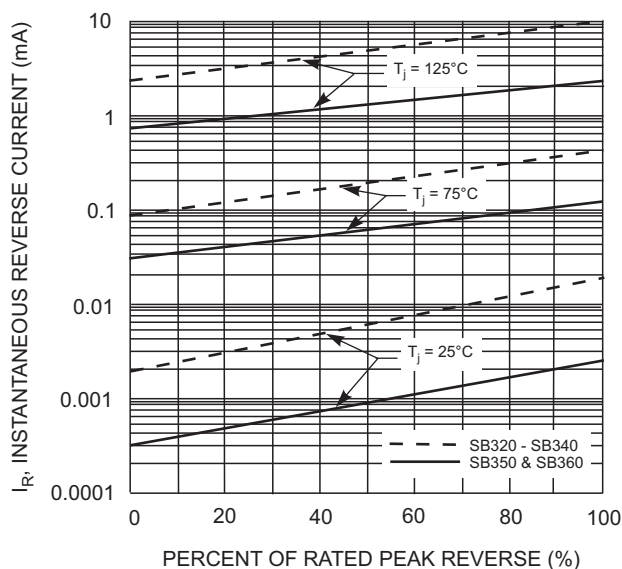


Fig. 5 Typical Reverse Characteristics

Ordering Information (Note 5)

Device	Packaging	Shipping
SB320-B	DO-201AD	500/Bulk
SB330-B	DO-201AD	500/Bulk
SB340-B	DO-201AD	500/Bulk
SB350-B	DO-201AD	500/Bulk
SB360-B	DO-201AD	500/Bulk

Notes: 5. For packaging details, visit our website at <http://www.diodes.com/datasheets/ap02008.pdf>

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