

## SB320-G Thru. SB3100-G

Voltage: 20 to 100 V

Current: 3.0 A

RoHS Device

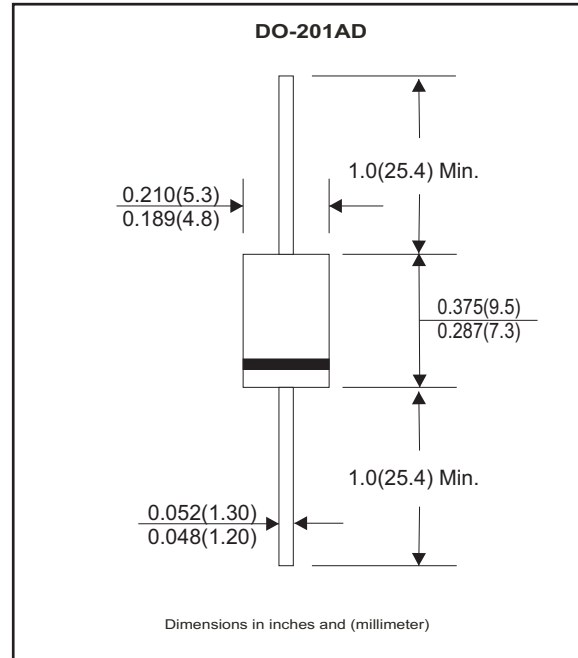


### Features

- Low drop down voltage.
- Metal-Semiconductor junction with guard ring
- High surge current capability
- Silicon epitaxial planar chips.
- For use in low voltage, high efficiency inverters, free wheeling, and polarity protection applications
- Lead-free part, meet RoHS requirements.

### Mechanical data

- Epoxy: UL94-V0 rated flame retardant
- Case: Molded plastic body DO-201AD
- Terminals: Solderable per MIL-STD-750 Method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 1.12grams



### Electrical Characteristics (at TA=25°C unless otherwise noted)

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	SB 320-G	SB 340-G	SB 345-G	SB 350-G	SB 360-G	SB 380-G	SB 3100-G	Unit
Maximum recurrent peak reverse voltage	V <sub>RRM</sub>	20	40	45	50	60	80	100	V
Maximum RMS voltage	V <sub>RMS</sub>	14	28	30	35	42	56	70	V
Maximum DC blocking voltage	V <sub>DC</sub>	20	40	45	50	60	80	100	V
Maximum average forward rectified current 0.375" (9.5mm) lead length at TA=100°C, See Figure 1	I <sub(av)< sub=""></sub(av)<>	3.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method) TL=110°C	I <sub>FSM</sub>	80							A
Maximum forward voltage at 3.0A	V <sub>F</sub>	0.50		0.70		0.85		V	
Maximum DC reverse current At rated DC blocking voltage	I <sub>R</sub>	0.5							mA
TA=25°C TA=100°C		20				10			
Typical junction capacitance (Note 1)	C <sub>J</sub>	250					90		pF
Typical thermal resistance (Note 2)	R <sub>θJA</sub> R <sub>θJL</sub>	40.0 20.0							°C/W
Operating junction temperature range	T <sub>J</sub>	-55 to +125			-55 to +150			°C	
Storage temperature range	T <sub>STG</sub>	-55 to +150							°C

NOTES:

1. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts.
2. Thermal resistance junction to ambient and junction to lead.

## RATING AND CHARACTERISTIC CURVES (SB320-G Thru. SB3100-G)

Fig.1- Forward Current Derating Curve

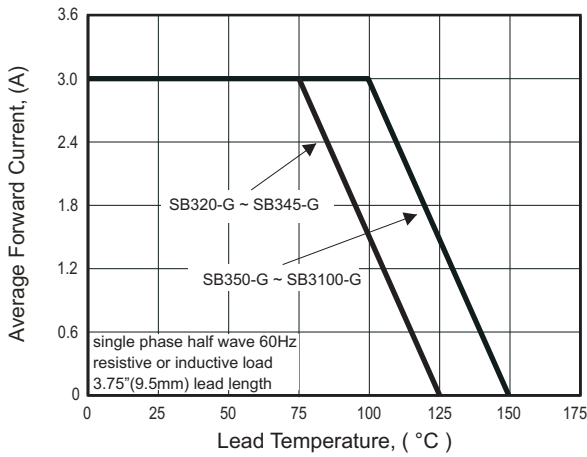


Fig.2 - Maximum Non-repetitive Peak Forward Surge Current

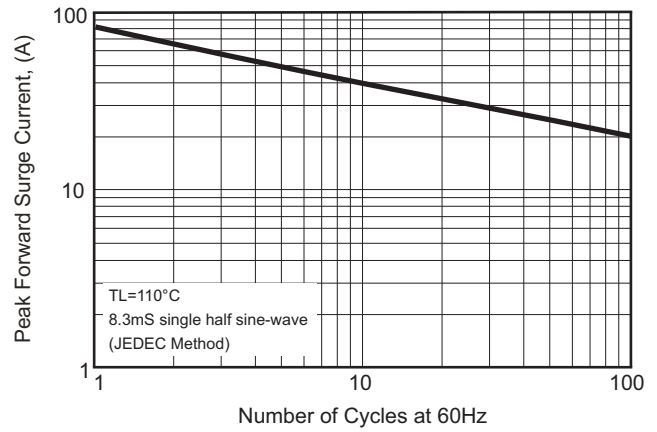


Fig.3 - Typical Instantaneous Forward Characteristics

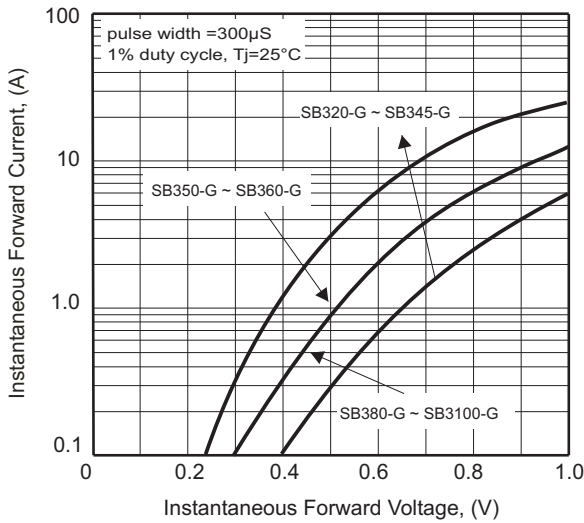


Fig.4A - Typical Reverse Characteristics

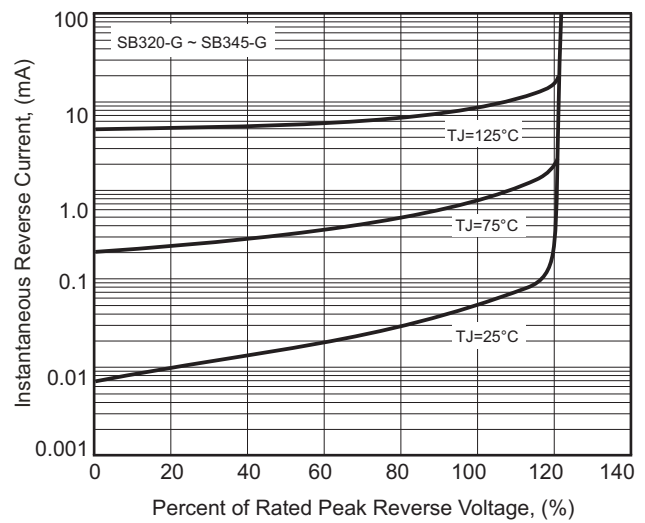


Fig.5 - Typical Junction Capacitance

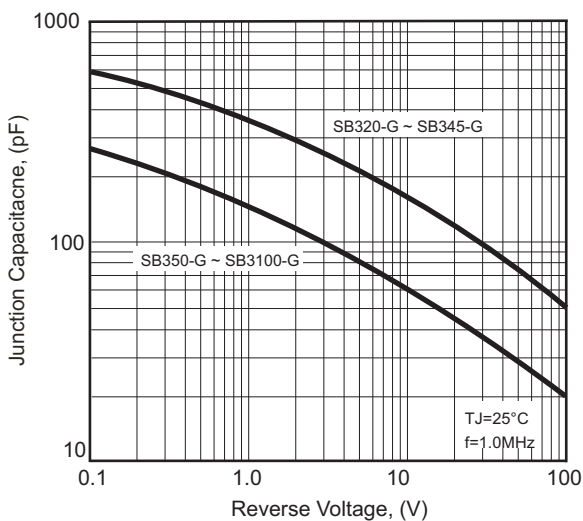
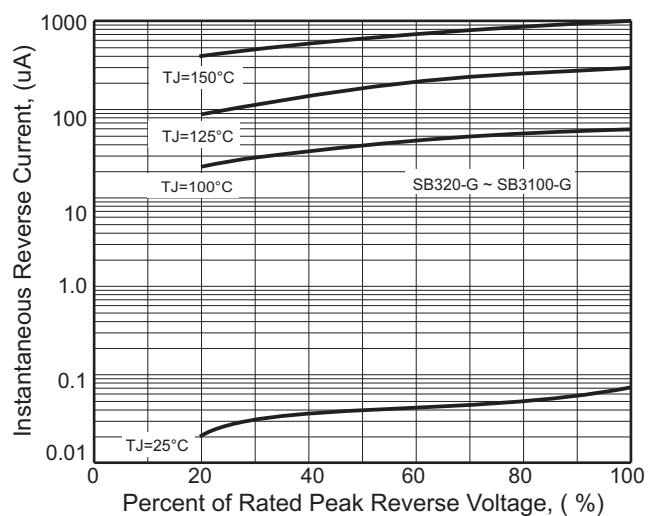


Fig. 4B - Typical Reverse Characteristic



## Marking Code

Part Number	Marking code	Packaging
SB320T-G	SB320	AMMO REEL
SB340T-G	SB340	AMMO REEL
SB345T-G	SB345	AMMO REEL
SB350T-G	SB350	AMMO REEL
SB360T-G	SB360	AMMO REEL
SB380T-G	SB380	AMMO REEL
SB3100T-G	SB3100	AMMO REEL
SB320B-G	SB320	BULK
SB340B-G	SB340	BULK
SB345B-G	SB345	BULK
SB350B-G	SB350	BULK
SB360B-G	SB360	BULK
SB380B-G	SB380	BULK
SB3100B-G	SB3100	BULK



**XXX / XXXX = Product type marking code**

Note:

1) Suffix code after part number to specify packaging item .

Packaging	Code
AMMO Reel PACK	T
BULK PACK	B

## Standard Packaging

Case Type	REEL PACK	
	REEL ( pcs )	Reel Size (inch)
DO-201AD	1,200	13

Case Type	BULK PACK	
	BOX ( pcs )	CARTON ( pcs )
DO-201AD	200	12,000