

SB220-G Thru. SB2100-G

Voltage: 20 to 100 V

Current: 2.0 A

RoHS Device

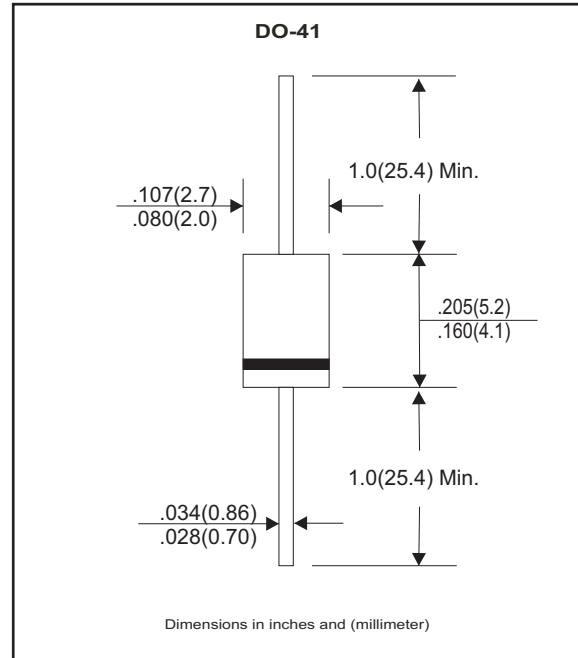


Features

- 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-41
- Terminals: Solderable per MIL-STD-750 Method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.4 grams



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

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	SB 220-G	SB 240-G	SB 245-G	SB 250-G	SB 260-G	SB 280-G	SB 2100-G	Unit
Maximum recurrent peak reverse voltage	V _{RRM}	20	40	45	50	60	80	100	V
Maximum RMS voltage	V _{RMS}	14	28	30	35	42	56	70	V
Maximum DC blocking voltage	V _{DC}	20	40	45	50	60	80	100	V
Maximum average forward rectified current 0.375" (9.5mm) lead length at TA=75°C, See Figure 1	I <sub(av)< sub=""></sub(av)<>	2.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method) TL=110°C	I _{FSM}	50							A
Maximum forward voltage at 2.0A	V _F	0.50		0.70		0.85		V	
Maximum DC reverse current At rated DC blocking voltage	I _R	0.5							mA
TA=25°C TA=100°C		10		5					
Typical junction capacitance (Note 1)	C _J	150		250			pF		
Typical thermal resistance (Note 2)	R _{θJA} R _{θJL}	35.0 20.0			°C/W				
Operating junction temperature range	T _J	-55 to +125			-55 to +150			°C	
Storage temperature range	T _{STG}	-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 (SB220-G Thru. SB2100-G)

Fig.1- Forward Current Derating Curve

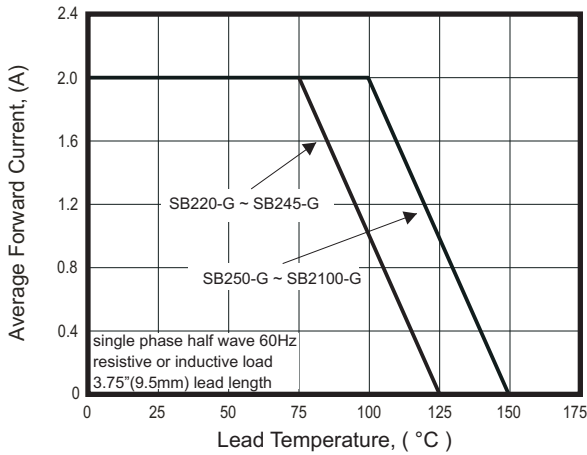


Fig.2 - Maximum Non-repetitive Peak Forward Surge Current

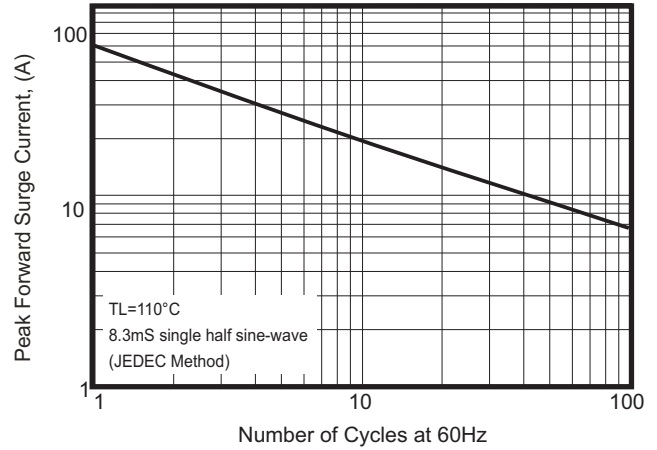


Fig.3 - Typical Instantaneous Forward Characteristics

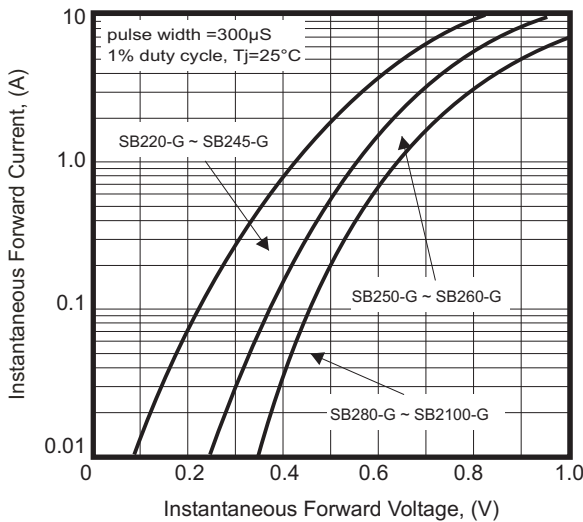


Fig.4A - Typical Reverse Characteristics

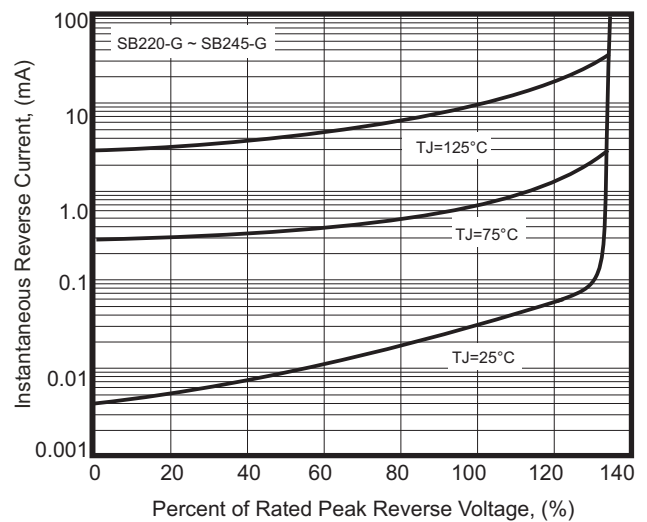


Fig.5 - Typical Junction Capacitance

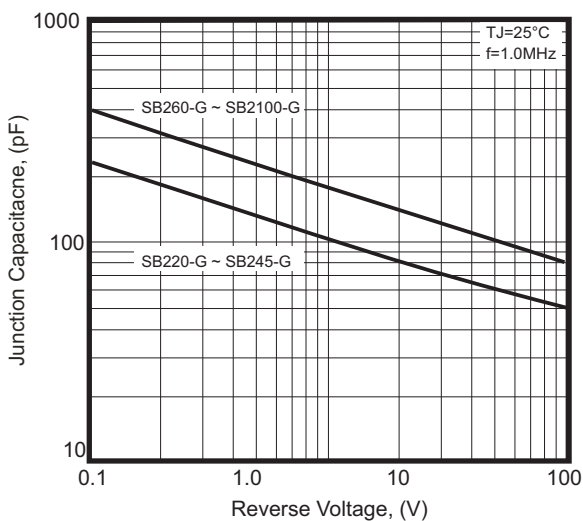
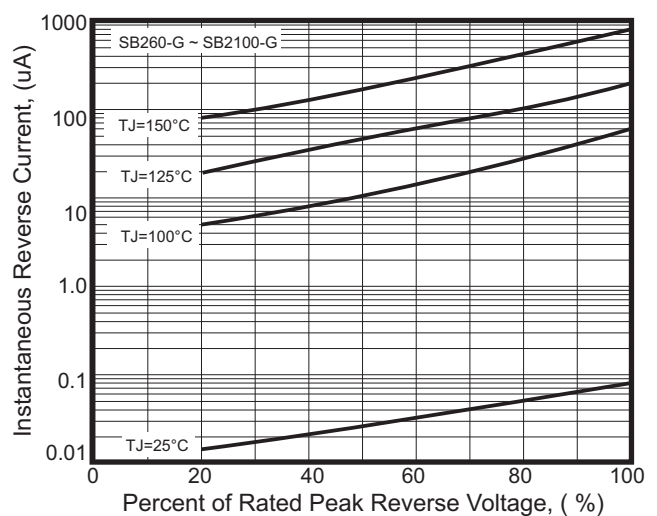
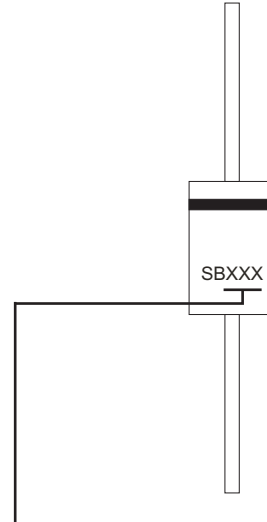


Fig. 4B - Typical Reverse Characteristic



Marking Code

Part Number	Marking Code	Packaging
SB220T-G	SB220	REEL
SB240T-G	SB240	REEL
SB245T-G	SB245	REEL
SB250T-G	SB250	REEL
SB260T-G	SB260	REEL
SB280T-G	SB280	REEL
SB2100T-G	SB2100	REEL
SB220A-G	SB220	AMMO
SB240A-G	SB240	AMMO
SB245A-G	SB245	AMMO
SB250A-G	SB250	AMMO
SB260A-G	SB260	AMMO
SB280A-G	SB280	AMMO
SB2100A-G	SB2100	AMMO
SB220B-G	SB220	BULK
SB240B-G	SB240	BULK
SB245B-G	SB245	BULK
SB250B-G	SB250	BULK
SB260B-G	SB260	BULK
SB280B-G	SB280	BULK
SB2100B-G	SB2100	BULK



XXX / XXXX = Product type marking code

Note:

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

Packaging	Code
REEL PACK	T
AMMO PACK	A
BULK PACK	B

Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
DO-41	5,000	13

Case Type	BULK PACK
	BOX (pcs)
DO-41	1,000

Case Type	AMMO PACK
	BOX (pcs)
DO-41	5,000