

## SB240-G Thru. SB2100-G

Reverse Voltage: 40 to 100 V

Forward Current: 2.0 A

RoHS Device

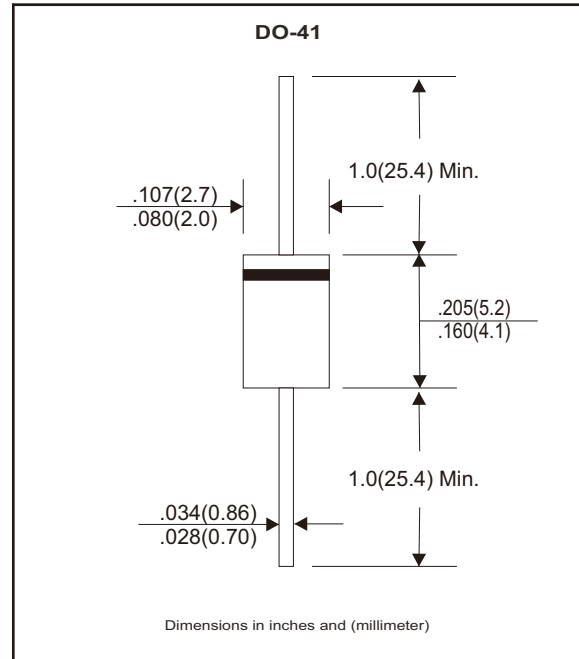


### Features

- 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.



### Circuit Diagram



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

Parameter	Symbol	SB240-G	SB260-G	SB2100-G	Unit
Maximum recurrent peak reverse voltage	V <sub>RRM</sub>	40	60	100	V
Maximum RMS voltage	V <sub>RMS</sub>	28	42	70	V
Maximum DC blocking voltage	V <sub>DC</sub>	40	60	100	V
Maximum average forward rectified current 0.375" (9.5mm) lead length at TA=75°C, See Figure 1	I <sub>F(AV)</sub>	2.0			A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method) TL=110°C	I <sub>FSM</sub>	50			A
Maximum forward voltage at 2.0A	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
		10	5		
Typical junction capacitance (Note 1)	C <sub>J</sub>	150	250		pF
Typical thermal resistance (Note 2)	R <sub>θJA</sub> R <sub>θJL</sub>	35.0 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 (SB240-G Thru. SB2100-G)

Fig.1- Forward Current Derating Curve

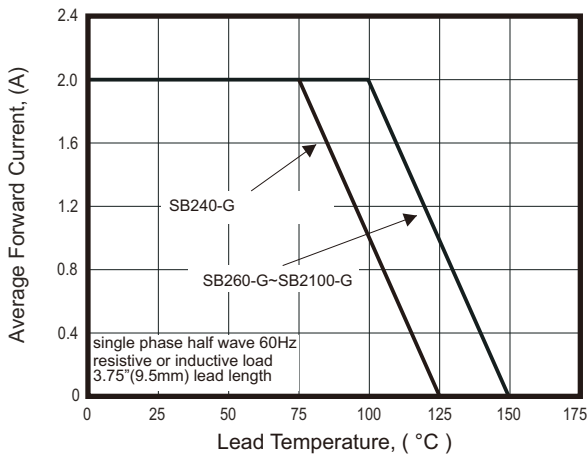


Fig.2 - Maximum Non-repetitive Peak Forward Surge Current

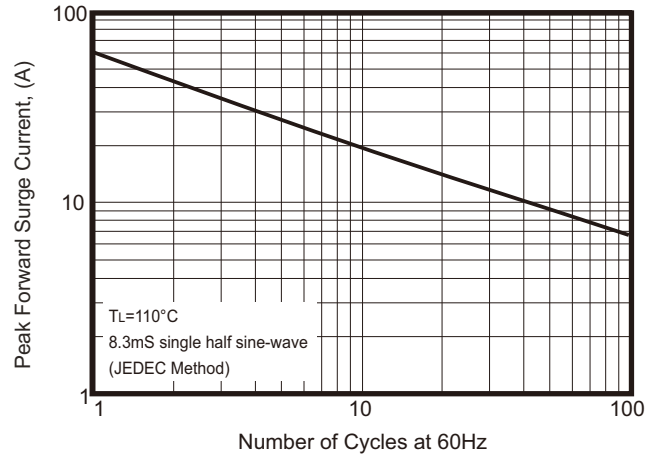


Fig.3 - Typical Instantaneous Forward Characteristics

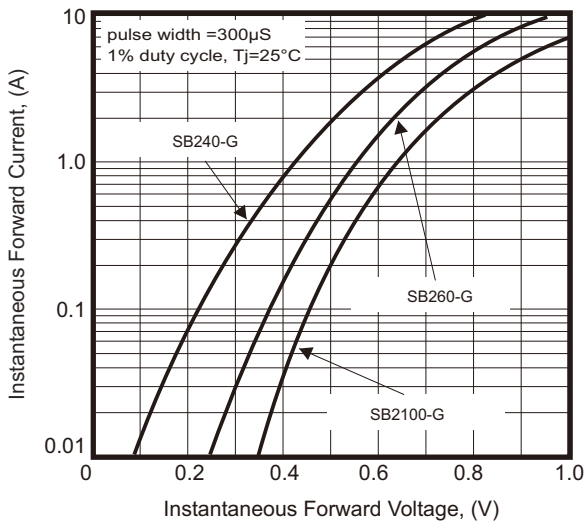


Fig.4A - Typical Reverse Characteristics

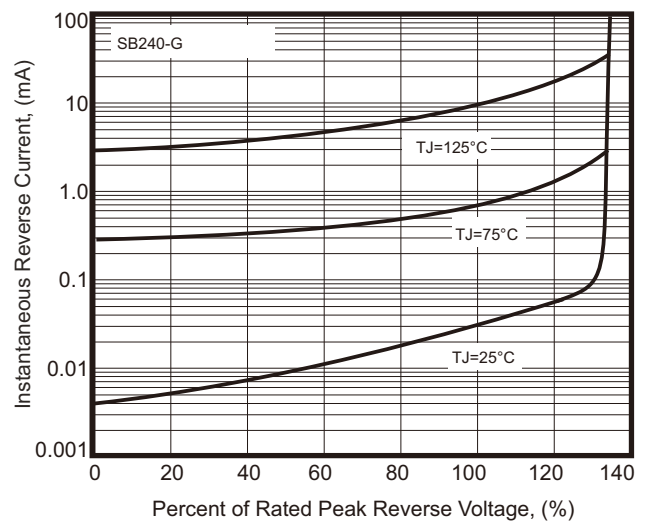


Fig.5 - Typical Junction Capacitance

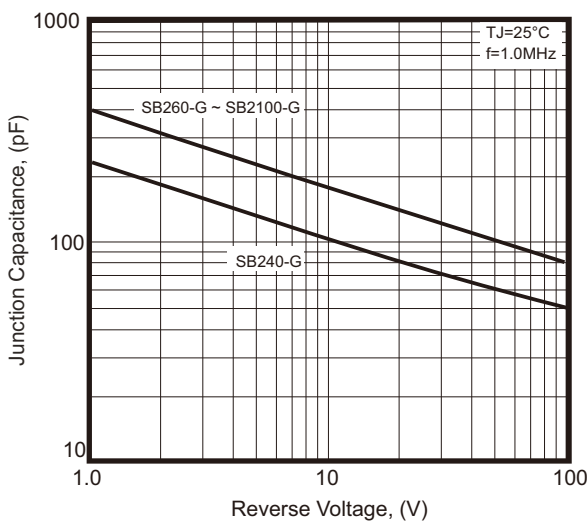
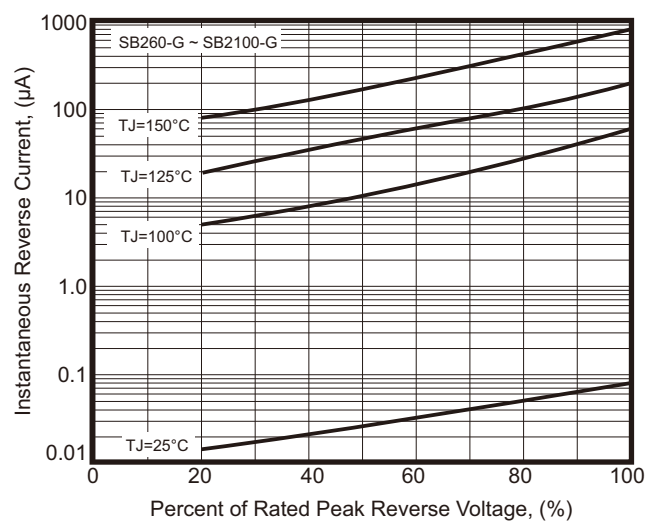
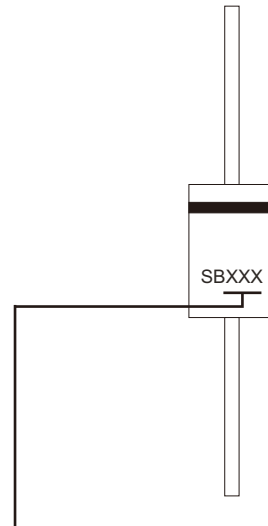


Fig. 4B - Typical Reverse Characteristic



## Marking Code

Part Number	Marking Code
SB240-G	SB240
SB260-G	SB260
SB2100-G	SB2100



XXX / XXXX = Product type marking code

## Standard Packaging

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