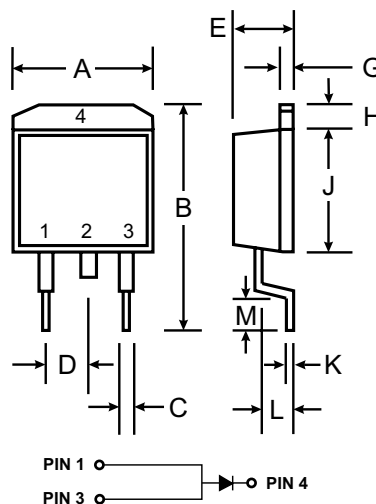


Features

- Guard Ring Die Construction for Transient Protection
- Low Power Loss, High Efficiency
- High Surge Capability
- High Current Capability and Very Low Forward Voltage Drop
- Surge Overload Rating to 250A Peak
- Plastic Material: UL Flammability Classification Rating 94V-0

Mechanical Data

- Case: D²PAK Molded Plastic
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: See Diagram
- Marking: Type Number
- Weight: 1.7 grams (approx.)



D ² PAK		
Dim	Min	Max
A	9.65	10.69
B	14.60	15.88
C	0.51	1.14
D	2.29	2.79
E	4.37	4.83
G	1.14	1.40
H	1.14	1.40
J	8.25	9.25
K	0.30	0.64
L	2.03	2.92
M	2.29	2.79
All Dimensions in mm		

Note: Pins 1 & 3 should be electrically connected to the printed circuit board.

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	SBG11100	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _R	100	V
RMS Reverse Voltage	V _{R(RMS)}	71	V
Average Rectified Output Current @ T _C = 162°C	I _O	11	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave Superimposed on Rated Load (JEDEC Method)	I _{FSM}	250	A
Forward Voltage @ I _F = 8A, T _J = 25°C @ I _F = 16A, T _J = 25°C @ I _F = 8A, T _J = 125°C @ I _F = 16A, T _J = 125°C	V _{FM}	0.72 0.88 0.58 0.69	V
Voltage Rate of Change (Note 2)	dv/dt	10,000	V/μs
Peak Reverse Current at Rated DC Blocking Voltage @ T _A = 25°C @ T _A = 125°C	I _{RM}	0.55 7	mA
Junction Capacitance (Note 3)	C _J	500	pF
Typical Thermal Resistance Junction to Case (Note 1)	R _{θJC}	2.0	K/W
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to +175	°C

- Notes:
1. Thermal resistance: junction to case, unit mounted on PC board with 5.0 mm² (0.013 mm thick) copper pad as heat sink.
 2. 300μs pulse width, 2% duty cycle.
 3. F = 1 MHz, V_R = 5V.

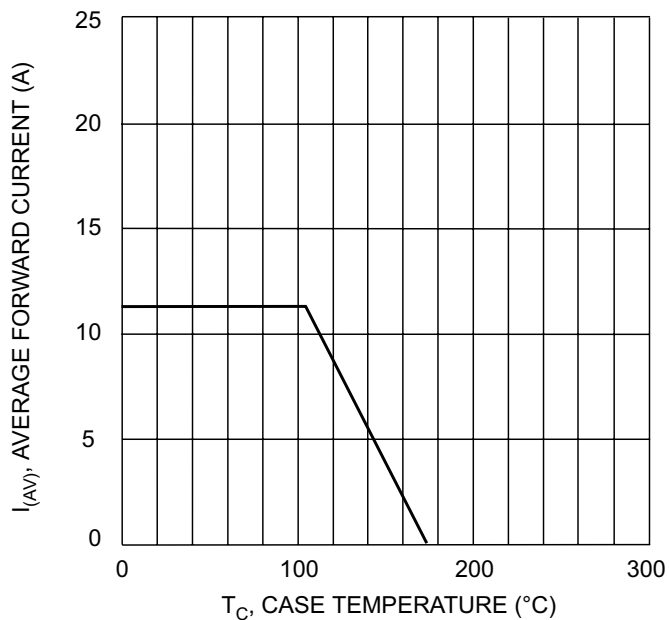


Fig. 1 Forward Current Derating Curve

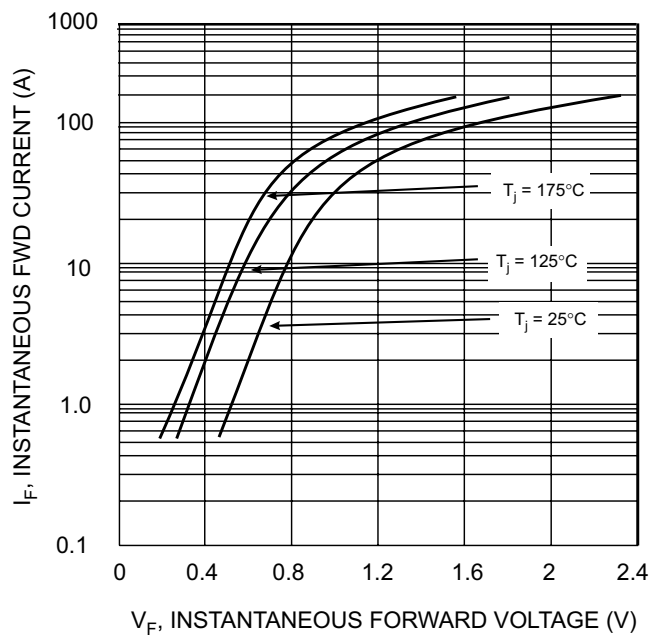


Fig. 2 Typical Fwd Characteristics per Element

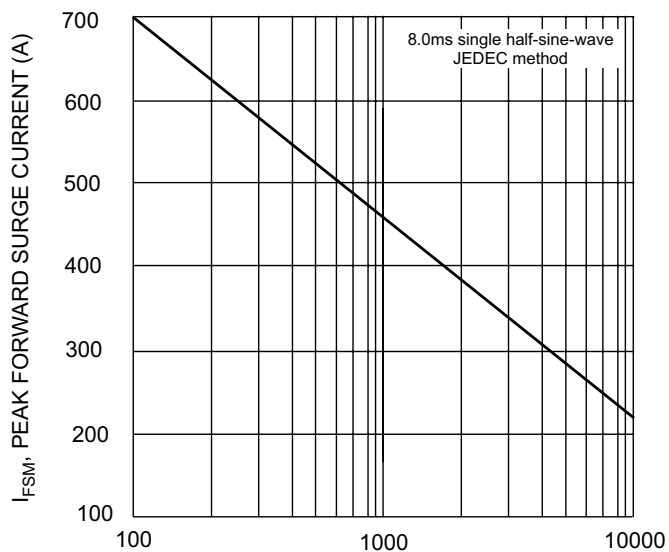


Fig. 3 Max Non-Repetitive Surge Current

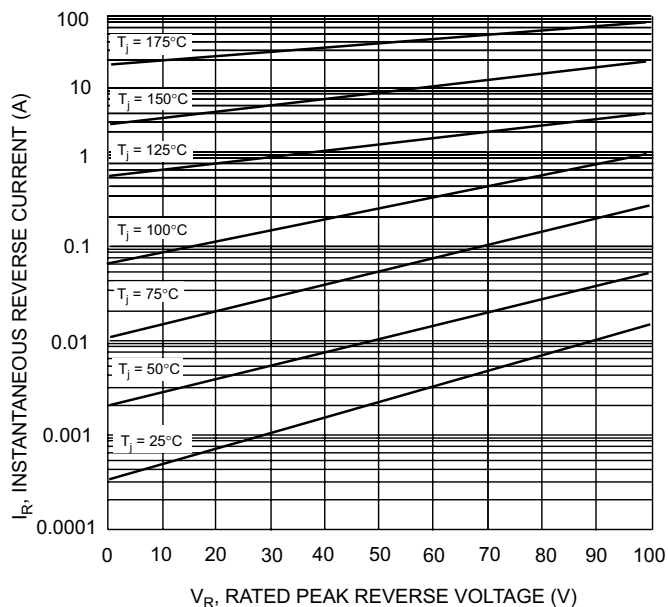


Fig. 4 Typical Reverse Characteristics