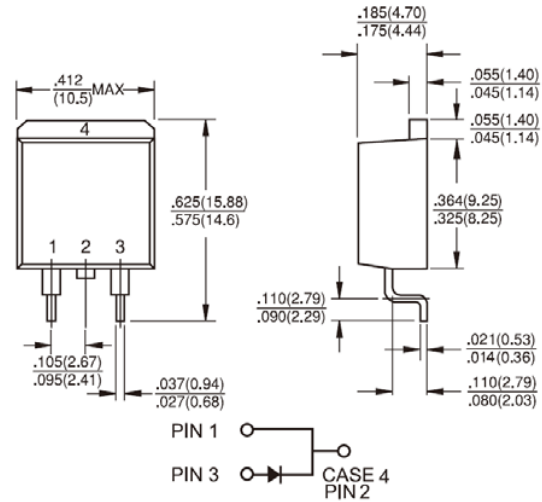




Features

- ✧ Glass passivated junction chip
- ✧ High efficiency, low VF
- ✧ High current capability
- ✧ High reliability
- ✧ High surge current capability
- ✧ Low power loss
- ✧ For use in low voltage, high frequency inverter, Free wheeling, and polarity protection application
- ✧ Green compound with suffix "G" on packing code & prefix "G" on datecode



Mechanical Data

- ✧ Case: D²PAK Molded plastic
- ✧ Epoxy: UL 94V-0 rate flame retardant
- ✧ Terminals: Pure tin plated, lead free, solderable per MIL-STD-202, Method 208 guaranteed
- ✧ Polarity: As marked
- ✧ High temperature soldering: 260 °C/10 seconds/.16", (4.06mm) from case
- ✧ Weight: 1.33 grams

Dimensions in inches and (millimeters)



Marking Diagram

- SFAS100XG = Specific Device Code
- G = Green Compound
- Y = Year
- WW = Work Week

Maximum Ratings and Electrical Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%

Type Number	Symbol	SFAS1008G	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	600	V
Maximum RMS Voltage	V_{RMS}	420	V
Maximum DC Blocking Voltage	V_{DC}	600	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	10	A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	125	A
Maximum Instantaneous Forward Voltage @ 10 A	V_F	1.7	V
Maximum Reverse Current @ Rated VR $T_A=25\text{ }^\circ\text{C}$ $T_A=100\text{ }^\circ\text{C}$	I_R	10 400	μA
Maximum Reverse Recovery Time (Note 1)	T_{rr}	35	nS
Typical Junction Capacitance (Note 2)	C_j	60	pF
Typical Thermal Resistance	$R_{\theta JC}$	2.2	$^\circ\text{C/W}$
Operating Temperature Range	T_J	- 65 to + 150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	- 65 to + 150	$^\circ\text{C}$

Note 1: Reverse Recovery Test Conditions: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{RR}=0.25\text{A}$

Note 2: Measured at 1 MHz and Applied Reverse Voltage of 4.0V D.C.

RATINGS AND CHARACTERISTIC CURVES (SFAS1008G)

FIG. 1 FORWARD CURRENT DERATING CURVE

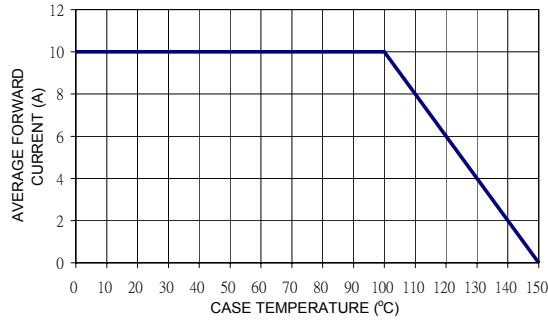


FIG. 2 TYPICAL REVERSE CHARACTERISTICS

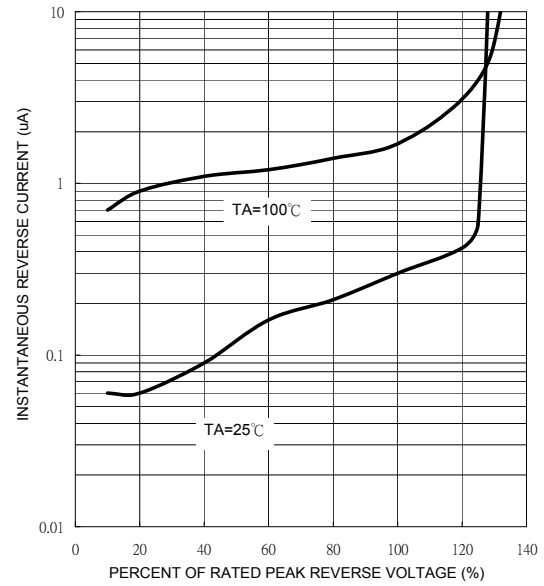


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

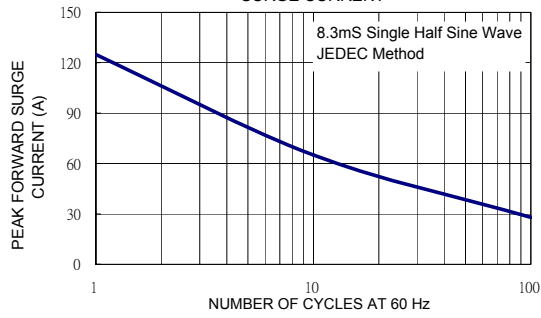


FIG. 5 TYPICAL FORWARD CHARACTERISTICS

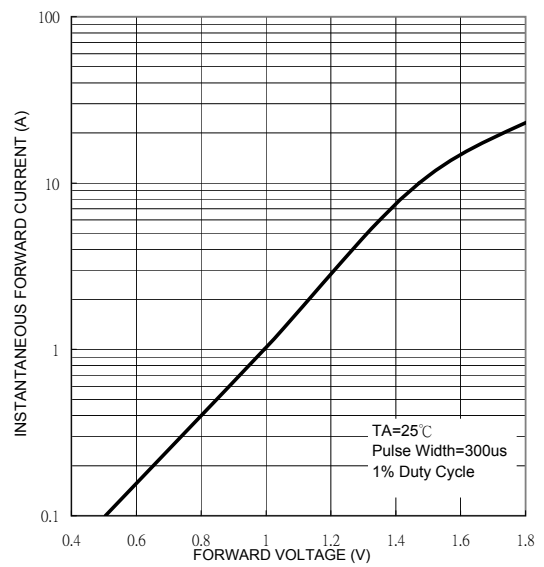


FIG. 4 TYPICAL JUNCTION CAPACITANCE

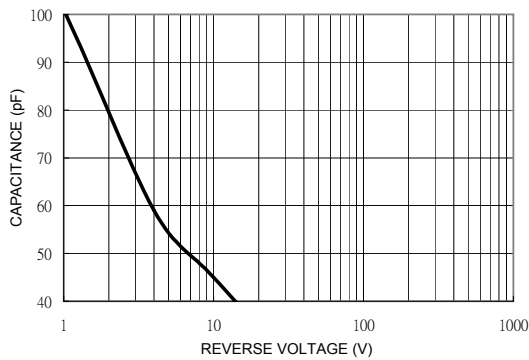


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

