GLASS PASSIVATED SUPER FAST RECTIFIERS

PRODUCT SUMMARY

Isolated 16.0 AMPS

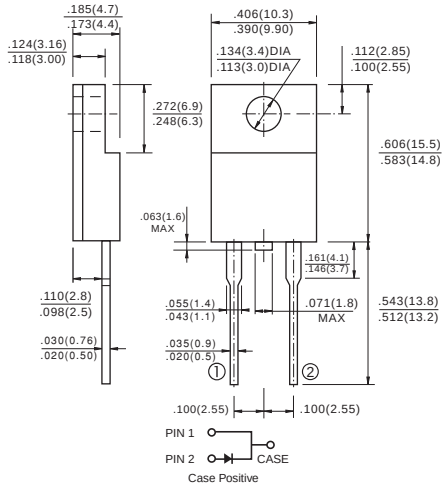
FEATURES

High efficiency, low VF.
High current capability
High reliability
High surge current capability
Low power loss.
For use in low voltage, high frequency inventor, free wheeling, and polarity protection application

MECHANICAL DATA

Cases: ITO-220AC molded plastic
Epoxy: UL 94V-0 rate flame retardant
Terminals: Pure tin plated, lead free. solderable per Case Positive MIL-STD-202, Method 208 guaranteed
Polarity: As marked
High temperature soldering guaranteed:
260°C/10 seconds .16″, (4.06mm) from case
Weight: 2.24 grams

ITO-220AC



Dimensions in inches and (millimeters)

Pb-free; RoHS-compliant

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	SFAF 1601G	SFAF 1602G	SFAF 1603G	SFAF 1604G	SFAF 1605G	SFAF 1606G	SFAF 1607G	SFAF 1608G	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	150	200	300	400	500	600	V
Maximum RMS Voltage	V_{RMS}	35	70	105	140	210	280	350	420	V
Maximum DC Blocking Voltage	V_{DC}	50	100	150	200	300	400	500	600	V
Maximum Average Forward Rectified Current @T_C = 100 °C	$I_{(AV)}$	16.0								A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	200								A
Maximum Instantaneous Forward Voltage @ 16.0A	V_F	0.975				1.3		1.7		V
Maximum DC Reverse Current @T_A=25 °C at Rated DC Blocking Voltage @ T_A=100 °C	I_R	10 400								uA uA
Maximum Reverse Recovery Time (Note 1)	Trr	35								nS
Typical Junction Capacitance (Note 2)	Cj	130				100				pF
Typical Thermal Resistance C (Note 3)	$R_{\theta JC}$	1.3								°C/W
Operating Temperature Range	T_J	-65 to +150								°C
Storage Temperature Range	T_{STG}	-65 to +150								°C

Notes: 1. Reverse Recovery Test Conditions: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A
2. Measured at 1 MHz and Applied Reverse Voltage of 4.0 V D.C.
3. Mounted on Heatsink Size of 3” x 5” x 0.25” Al-Plate.

RATINS AND CHARACTERISTIC CURVES (SFAF1601G THRU SFAF1608G)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

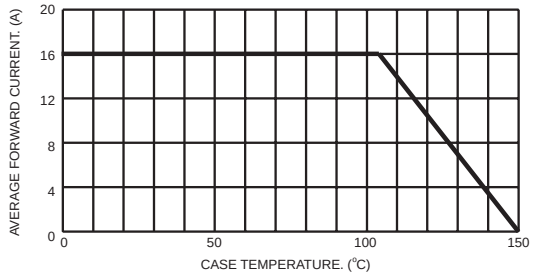


FIG.2- TYPICAL REVERSE CHARACTERISTICS

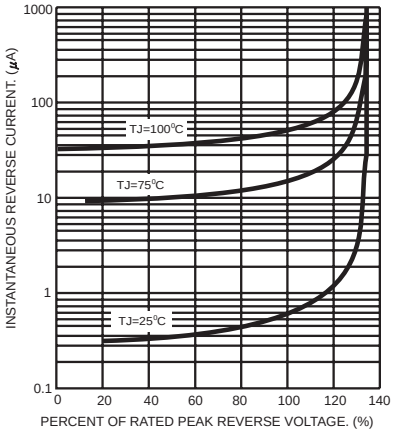


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

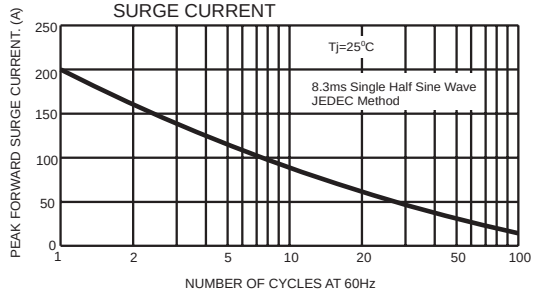


FIG.5- TYPICAL FORWARD CHARACTERISTICS

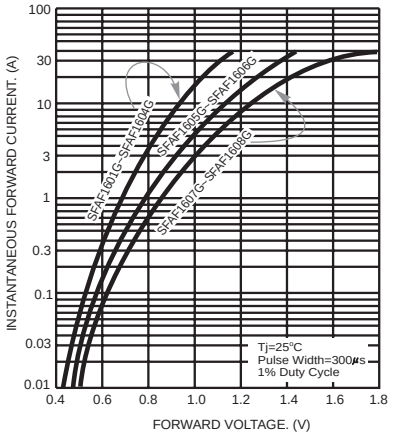


FIG.4- TYPICAL JUNCTION CAPACITANCE

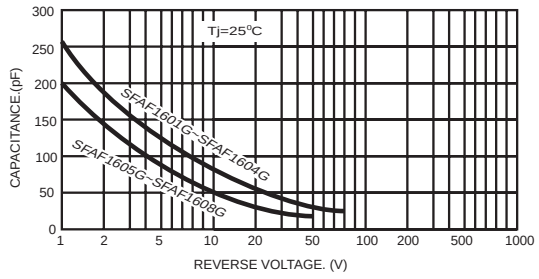


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM