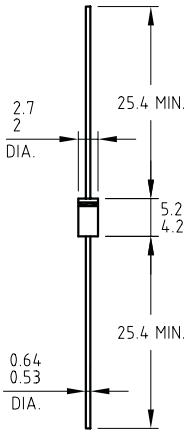
1.0 Amp. Glass Passivated Ultrafast Rectifiers

RoHS COMPLIANCE

A-405
(Plastic)



Dimensions in mm.

Voltage	**Current**
200 V to 600 V	1.0 A

- 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

- Case: Molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Lead: Pure tin plated, lead free., solderable per MIL-STD-202, Method 208 guaranteed
- Polarity: Color band denotes cathode
- High temperature soldering guaranteed: 260 °C/10 seconds/9.5mm lead lengths at 2.3kg.,tension
- Mounting position: Any
- Weight: 0.22 gram

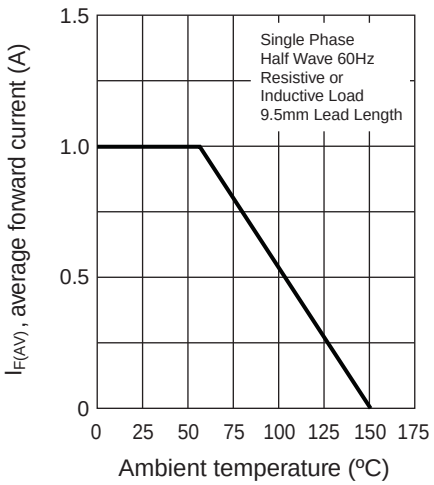
Maximun Ratings and Electrical Characteristics at 25 °C

		SF 14SG	SF 16SG	SF 18SG
V_{RRM}	Maximum Recurrent Peak Reverse Voltage (V)	200	400	600
V_{RMS}	Maximum RMS Voltage (V)	140	280	420
V_{DC}	Maximum DC Blocking Voltage (V)	200	400	600
$I_{(AV)}$	Maximum average Forward Rectified Current 9.5mm Lead Length @ T_A = 55 °C	1.0 A		
I_{FSM}	Peak Forward Surge Current 8.3 ms Single Half Sine-Wave Superimposed on Rated Load (Jedec Method)	30 A		
V_F	Maximum Instantaneous Forward Voltage at 1.0A	0.95 V	1.3 V	1.7 V
I_R	Maximum DC Reverse Current @ Ta = 25 °C at Rated DC Blocking Voltage @ Ta = 125 °C	5 µA 100 µA		
T_{rr}	Maximum Reverse Recovery Time (0.5/1/0.25A)	35 nS		
C_j	Typical Junction Capacitance (1MHz; -4V)	20 pF	10 pF	
$R_{th\ (j-a)}$	Typical Thermal Resistance	95 °C/W		
T_j	Operating Temperature Range	-65 to + 150 °C		
T_{stg}	Storage Temperature Range	-65 to + 150 °C		

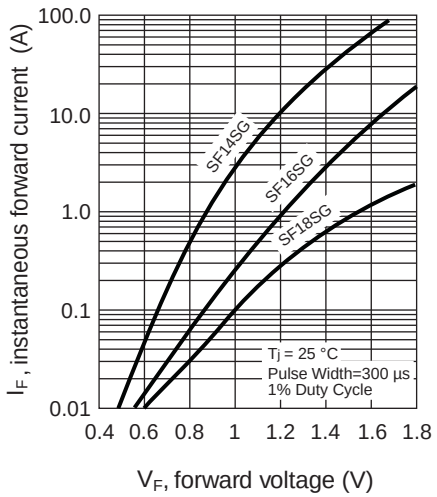
Note: Mount on Cu-Pad Size 5mm x 5mm on PCB.

Rating And Characteristic Curves

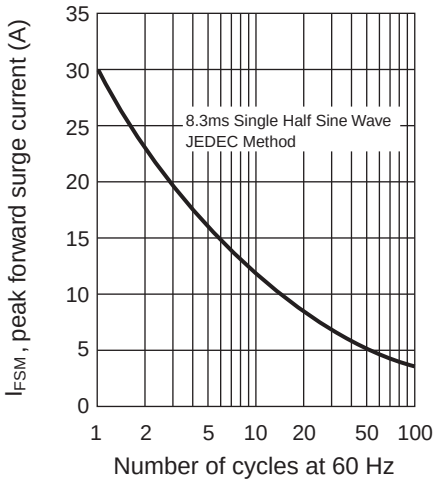
MAXIMUM AVERAGE FORWARD CURRENT DERATING



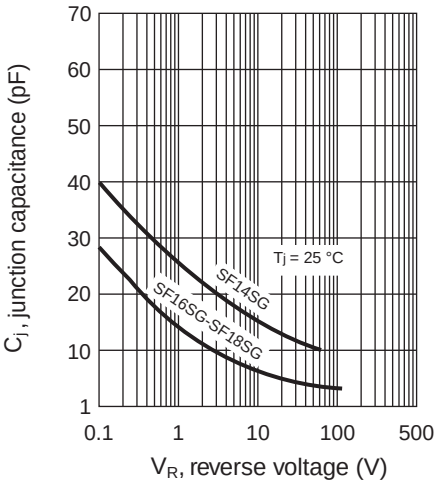
TYPICAL FORWARD CHARACTERISTICS



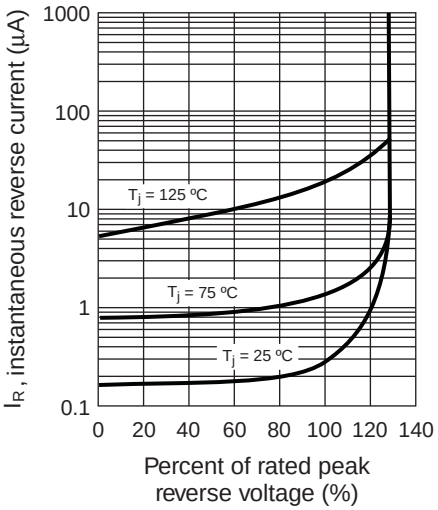
MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



TYPICAL JUNCTION CAPACITANCE



TYPICAL REVERSE CHARACTERISTICS



REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM