



### Features

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

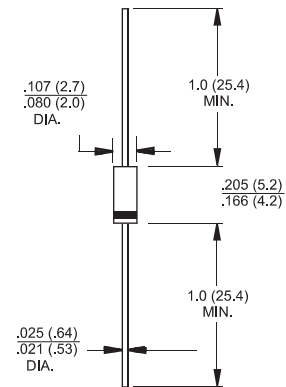
**VOLTAGE RANGE: 800— 1000 V**

**FORWARD CURRENT: 1.0 A**

### Mechanical Data

- ◇ Case: Molded plastic
- ◇ Epoxy: UL 94V-0 rated flame retardant
- ◇ Polarity: Color band denotes cathode
- ◇ High temperature soldering guaranteed:  
260°C/10 seconds/.375", (9.5mm) lead  
Lengths at 5 lbs., (2.3kg) tension
- ◇ Mounting position: ANY
- ◇ Weight: 0.260 gram

### A-405



Dimensions in inches and (millimeters)

### Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%

Type Number	Symbol	SF19LG	SF110LG	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	800	1000	V
Maximum RMS voltage	$V_{RMS}$	560	700	V
Maximum DC blocking voltage	$V_{DC}$	800	1000	V
Maximum Average Forward Rectified Current .375(9.5mm) Lead Length @ $T_A=55^\circ C$	$I_{F(AV)}$	1.0		A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load(JEDEC method)	$I_{FSM}$	30		A
Maximum Instantaneous Forward Voltage @1.0A	VF	2.2	2.2	V
Maximum DC Reverse current @ $T_A=25^\circ C$ at Rated DC Blocking Voltage @ $T_A=125^\circ C$	IR	5.0	100	$\mu A$
Maximum Reverse Recovery Time(Note1)	$T_{rr}$	35		nS
Typical junction capacitance: VR=5.0v,f=1MHz	CJ	10		pF
Operating temperature range	$T_J$	-65 to +150		$^\circ C$
Storage temperature range	$T_{STG}$	-65 to +150		$^\circ C$

Notes: 1.Reverse Recovery Test Conditions:IF=0.5A,IR=1.0A,IRR=0.25A

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

3.Mount on Cu-Pad Size 5mm x 5mm on PCB.



### RATINGS AND CHARACTERISTIC CURVES

FIG.1- MAXIMUM AVERAGE FORWARD CURRENT DERATING

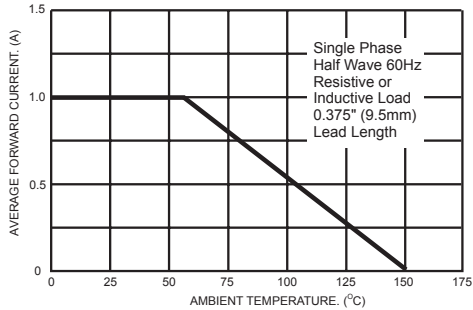


FIG.2- TYPICAL REVERSE CHARACTERISTICS

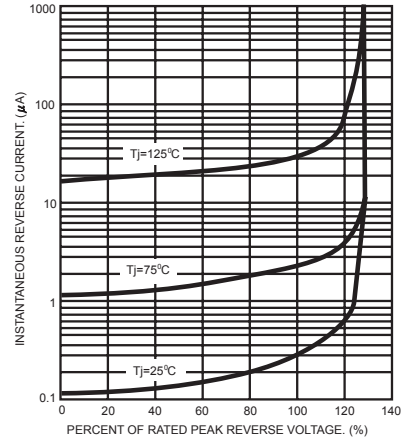


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

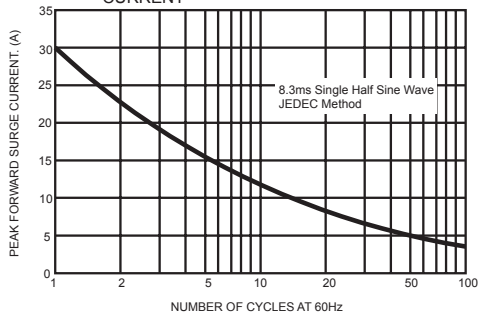


FIG.5- TYPICAL FORWARD CHARACTERISTICS

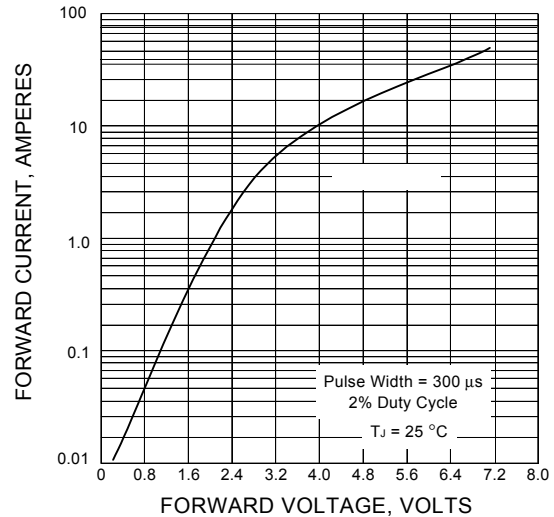


FIG.4- TYPICAL JUNCTION CAPACITANCE

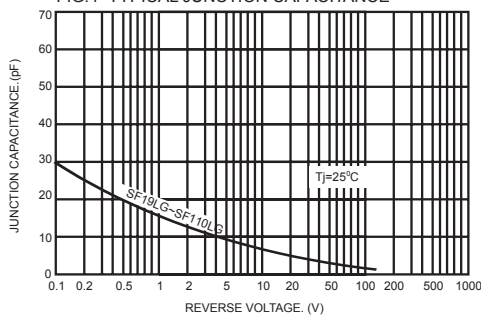
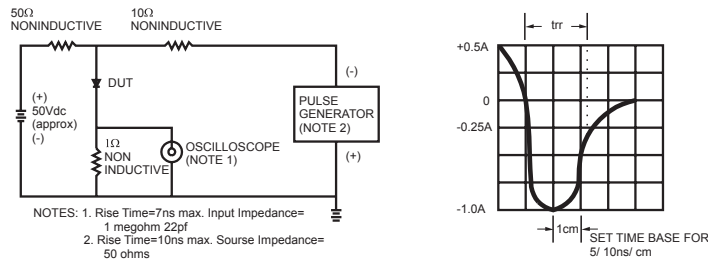


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



PACKAGE	SPQ/PCS	CARTON SPQ/PCS	CARTON SIZE/CM	CARTON GW/KG	CARTON NW/KG
A-405	5000/AMMO	50000	42X28X31	14.00	12.00