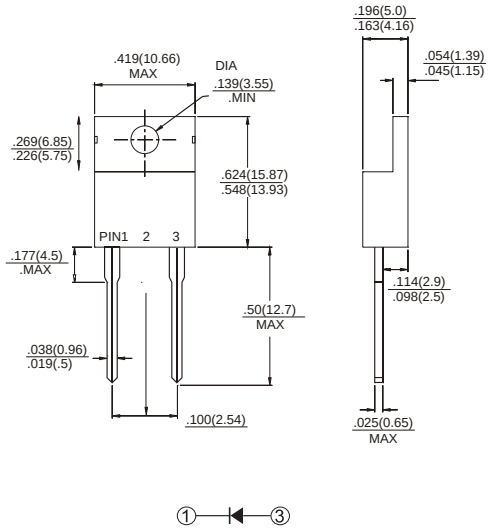
SEMICONDUCTOR

DATA SHEET

SF1001~SF1007

VOLTAGE RANGE
50 to 600 Volts
10.0 Amperes

TO-220AC Unit:inch(mm)



FEATURES

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- Good for switching mode application
- High temperature soldering : 260°C / 10 seconds at terminals
- Pb free product at available : 99% Sn above meet RoHS environment substance directive request

MECHANICAL DATA

- Case: Molded plastic
- Epoxy: UL 94V-0 rate flame retardant
  Lead: Lead solderable per MIL-STD-202, method 208 guranteed
- Polarity: As Marked
- Mounting position: Any
- Weight: 2.24 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25• •ambient temperature uniess otherwies specified.

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

For capacitive load, derate current by 20%.

TYPE NUMBER	SF1001	SF1002	SF1003	SF1004	SF1005	SF1006	SF1007	UNITS
Maximum Recurrent Peak Reverse Voltage	50	100	150	200	300	400	600	V
Maximum RMS Voltage	35	70	105	140	210	280	420	V
Maximum DC Blocking Voltage	50	100	150	200	300	400	600	V
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length at Tc=100°C	10.0							A
Peak Forward Surge Current , 8.3 ms single half sine-wave super imposed on rated load (JEDEC method)	150							A
Maximum Instantaneous Forward Voltage at 10.0A	0.95				1.30		1.70	V
Maximum DC Reverse Current Tc=25°C	10							uA
at Rated DC Blocking Voltage Tc=100°C	500							uA
Maximum Reverse Recovery Time (Note 1)	35				50			nS
Typical Junction Capacitance (Note 2)	50							pF
Operating and Storage Temperature Range TJ, TSTG	-55 +150							°C

NOTES:

1. Reverse Recovery Time test condition: IF=0.5A, IR=1.0A, IRR=0.25A
2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

RATINGS AND CHARACTERISTIC CURVES

SF1001~SF1007

RATING AND CHARACTERISTIC CURVES

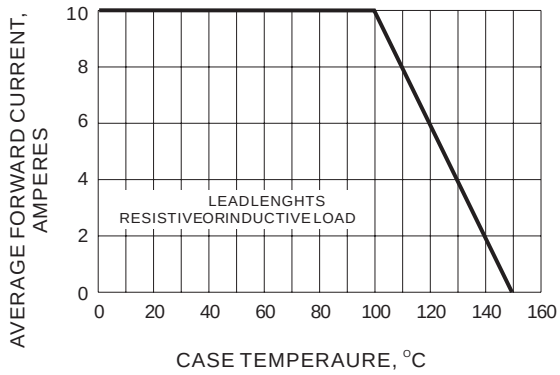


Fig.1- FORWARD CURRENT DERATING CURVE

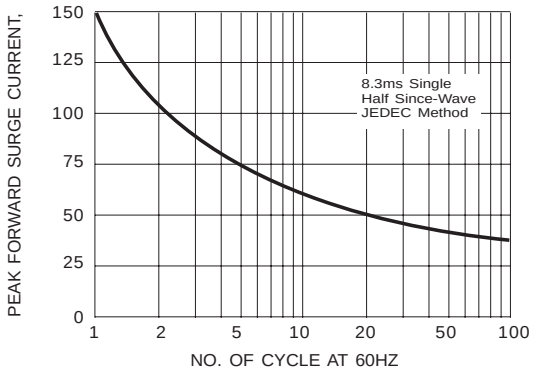


Fig.2- MAXIMUM NON - REPETITIVE SURGE CURRENT

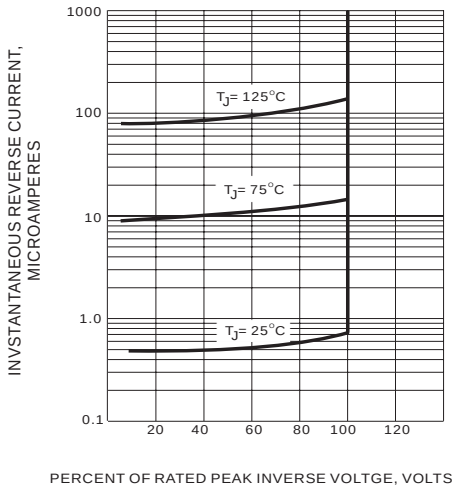


Fig.3- TYPICAL REVERSE CHARACTERISTIC

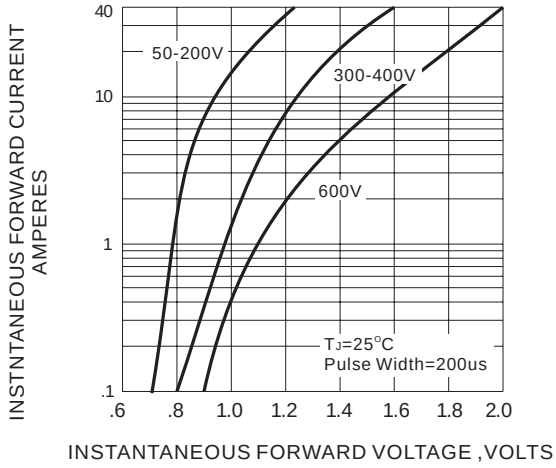


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC