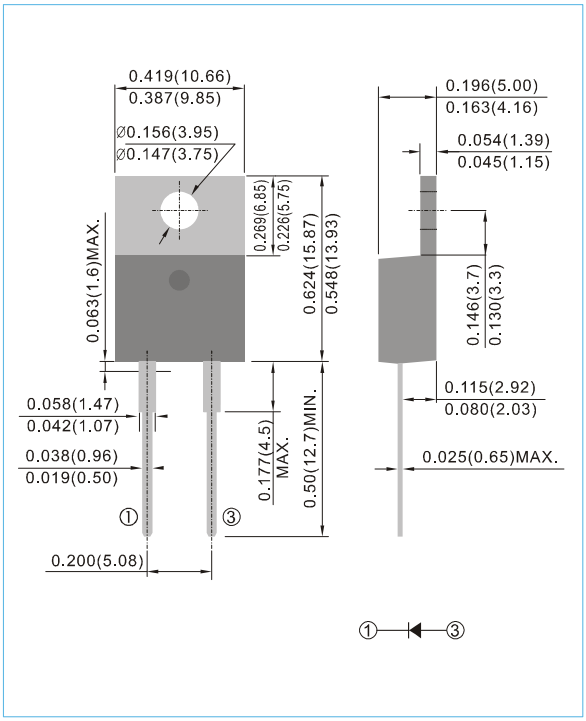
CURRENT 8 Ampere
VOLTAGE RANG 200 to 1000 Volts

SF802A THRU SF810A

TO-220AC Unit : inch(mm)



FEATURES

- Superfast recovery times-epitaxial construction.
- Low forward voltage, high current capability.
- Hermetically sealed.
- Low leakage.
- High surge capability.
- Plastic package has Underwriters Laboratories Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound.
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

MECHANICAL DATA

- Case: Molded plastic, TO-220AC
- Terminals: Axial leads, solderable to MIL-STD-750,Method 2026
- Polarity: As marking
- Weight: 0.067 ounces, 1.89 grams.

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.
Resistive or inductive load, 60Hz.

PARAMETER	SYMBOL	SF802A	SF804A	SF806A	SF808A	SF810A	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	200	400	600	800	1000	V
Maximum Average Forward Current at T_C=75°C	$I_{F(AV)}$	8					A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	125					A
Maximum Forward Voltage at 8A (Note 1)	V_F	0.95	1.3	1.5	1.7	1.9	V
Maximum DC Reverse Current at Rated DC Blocking Voltage T_J=25°C T_J=100°C	I_R	10 300					μA
Maximum Reverse Recovery Time (Note 1)	t_{rr}	35			50		ns
Typical Junction Capacitance (Note 2)	C_J	65					pF
Typical thermal Resistance (Note 3)	$R_{\theta JC}$	3					°C / W
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 to +150					°C

NOTES :
1. Pulse Test with PW=300μsec, 2% Duty Cycle.
2. Reverse Recovery Tset Conditions : I_F=0.5A,I_R=1A,Irr=0.25A
3. Mounted on P.C. Board with 14mm^2 (0.013mm thick) copper pad areas.

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RATING AND CHRACTERISTIC CURVES

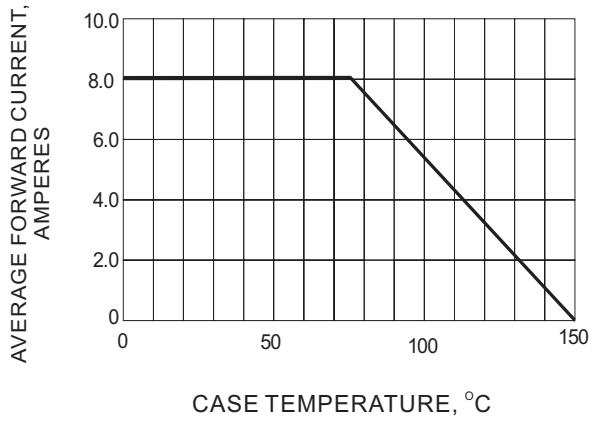

Fig.1-FORWARD CURRENT DERATING CURVE

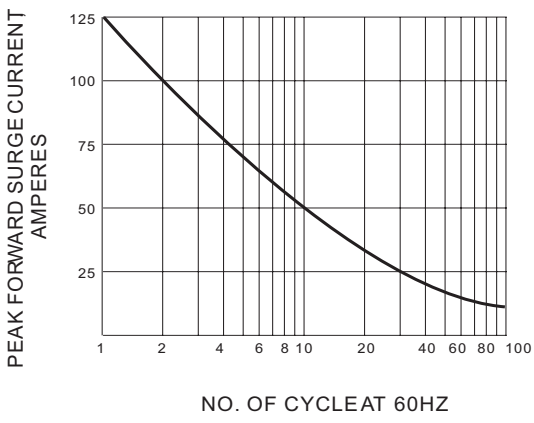

Fig.2-MAXIMUM NON-REPETITIVE SURGE CURRENT

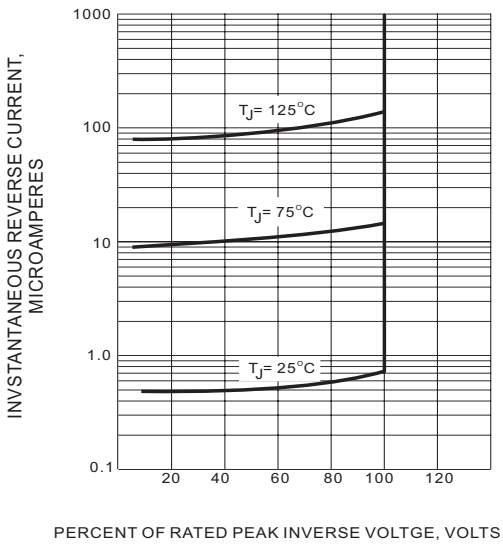

Fig.3-TYPICAL REVERSE CHARACTERISTICS

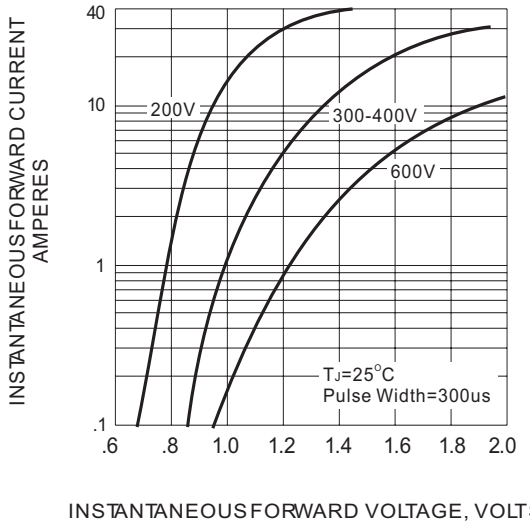

Fig.4-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS