

SF56G-R6

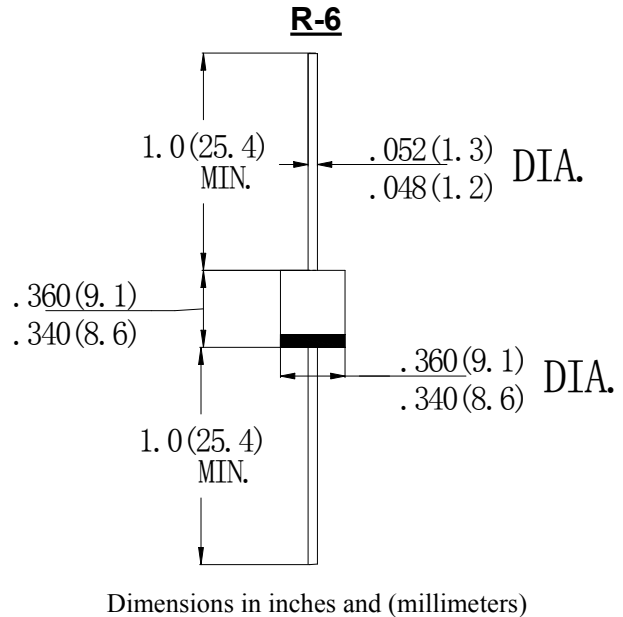
5.0AMPS. SUPER FAST RECTIFIERS

FEATURE

- . High current capability
- . Low forward voltage drop
- . Low power loss, high efficiency
- . High surge capability
- . High temperature soldering guaranteed
260°C /10sec/ 0.375" lead length at 5 lbs tension
- . Super fast recovery time for high efficiency.

MECHANICAL DATA

- . Terminal: Plated axial leads solderable per MIL-STD 202E, method 208C
- . Case: Molded with UL-94 Class V-0 recognized Flame Retardant Epoxy
- . Polarity: color band denotes cathode
- . Mounting position: any



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	SYM BOL	SF56G-R6	units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	400	V
Maximum RMS Voltage	V_{RMS}	280	V
Maximum DC blocking Voltage	V_{DC}	400	V
Maximum Average Forward Rectified Current .375"(9.5mm) lead length at $T_L=90^\circ\text{C}$	$I_{F(AV)}$	5.0	A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	150.0	A
Maximum Instantaneous forward Voltage at 5.0A DC	V_F	1.3	V
Maximum DC Reverse Current @ $T_J=25^\circ\text{C}$ at rated DC blocking voltage @ $T_J=100^\circ\text{C}$	I_R	5.0 100.0	μA
Maximum Reverse Recovery Time (Note 1)	t_{rr}	35	nS
Typical Junction Capacitance (Note 2)	C_J	90	pF
Typical Thermal Resistance (Note 3)	$R_{(JA)}$	15	$^\circ\text{C/W}$
Storage Temperature	T_{STG}	-55 to +150	$^\circ\text{C}$
Operation Junction Temperature	T_J	-55 to +150	$^\circ\text{C}$

Note:

1. Test Conditions: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{RR}=0.25\text{A}$
2. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
3. Thermal Resistance from Junction to Ambient at 0.375" (9.5mm) lead length, vertical P.C.Board Mounted.

RATING AND CHARACTERISTIC CURVES (SF56G-R6)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

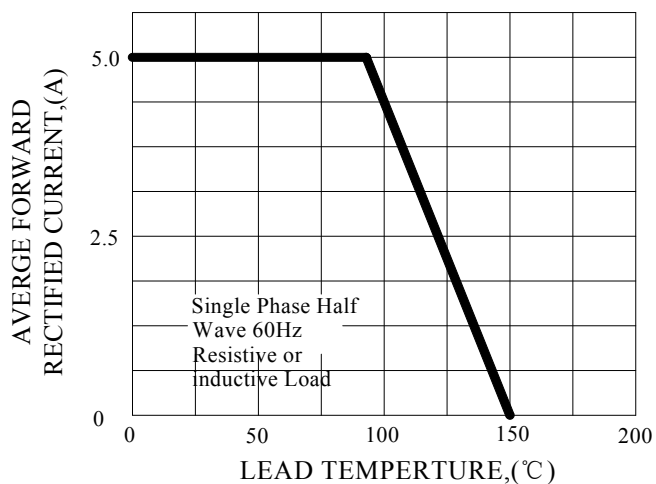


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

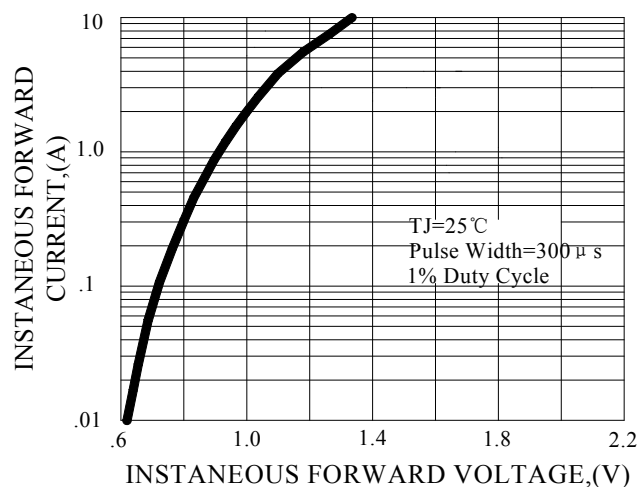


FIG.3-MAXIMUN NON-REPETITIVE FORWARD SURGE CURRENT

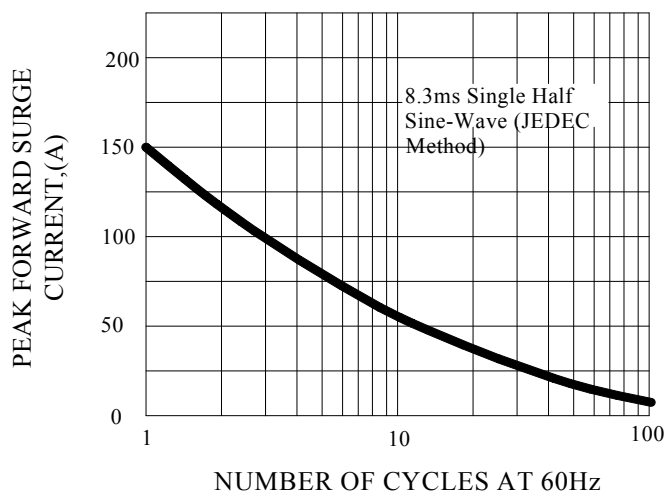


FIG.4-TYPICAL REVERSE CHARACTERISTICS

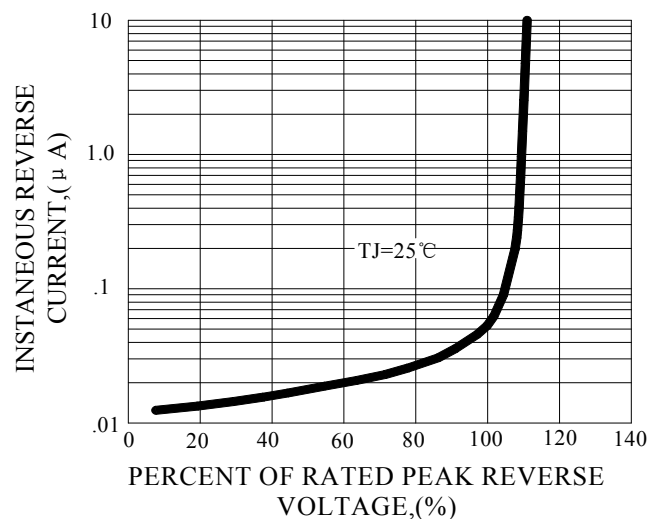
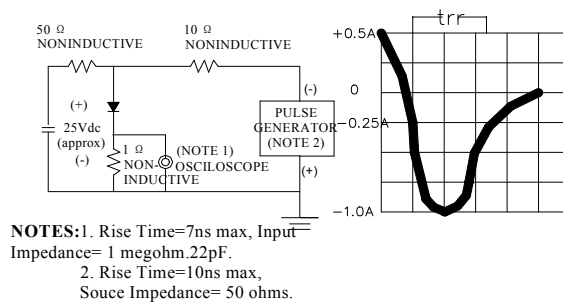
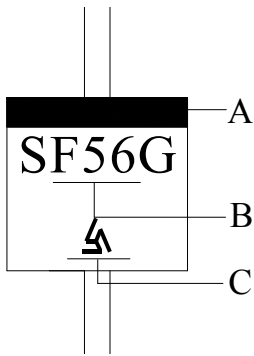


FIG.5-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



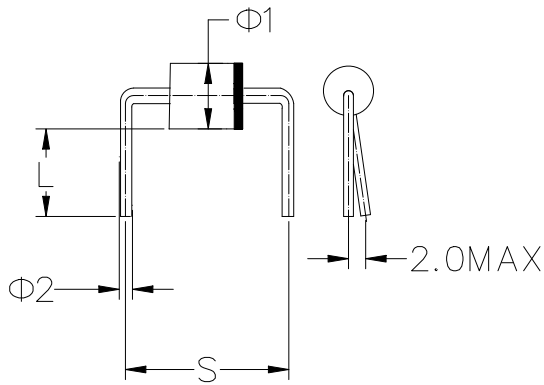
Marking and packaging illustration

1、Marking



SYMBOL	Explanation
A	Color Band Denotes Cathode
B	Product Name
C	Trademark

2、Bending



S	17.5±0.5	Φ1	8.9
L	3.5±0.3	Φ2	1.28

3、Packaging (B/P)

OUTLINE	BOX (PCS)
R-6	400

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