

SF54G THRU SF58G

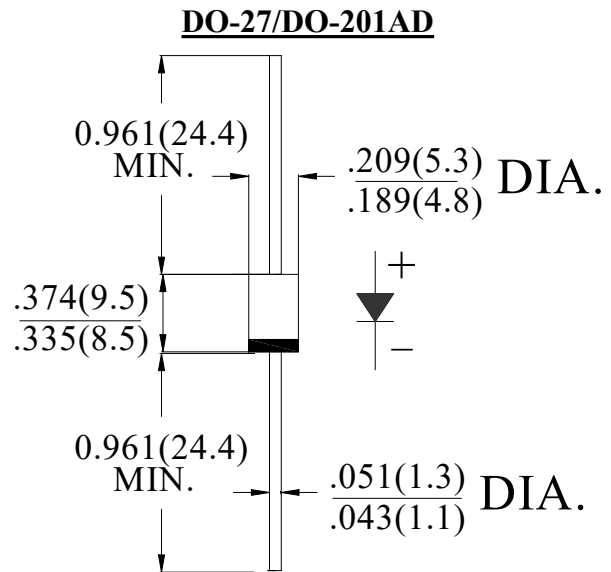
5.0AMPS.GLASS PASSIVATED SUPER FAST RECTIFIERS

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	SF54G	SF56G	SF 58G	units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	200V	400V	600V	V
Maximum RMS Voltage	V_{RMS}	140V	280V	420V	V
Maximum DC blocking Voltage	V_{DC}	200V	400V	600V	V
Maximum Average Forward Rectified Current .375"(9.5mm) lead length	$I_{F(AV)}$	5.0			A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	120.0			A
Maximum Instantaneous forward Voltage	V_F	0.95	1.3	1.7	V
Maximum DC Reverse Current @ $T_J=25^\circ\text{C}$ at rated DC blocking voltage @ $T_J=125^\circ\text{C}$	I_R	5.0 200.0			μA
Maximum Reverse Recovery Time (Note 1)	t_{rr}	35			nS
Typical Junction Capacitance (Note 2)	C_J	120	90		pF
Typical Thermal Resistance (Note 3)	$R_{(JA)}$	50			$^\circ\text{C/W}$
	$R_{(JC)}$	14			$^\circ\text{C/W}$
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

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

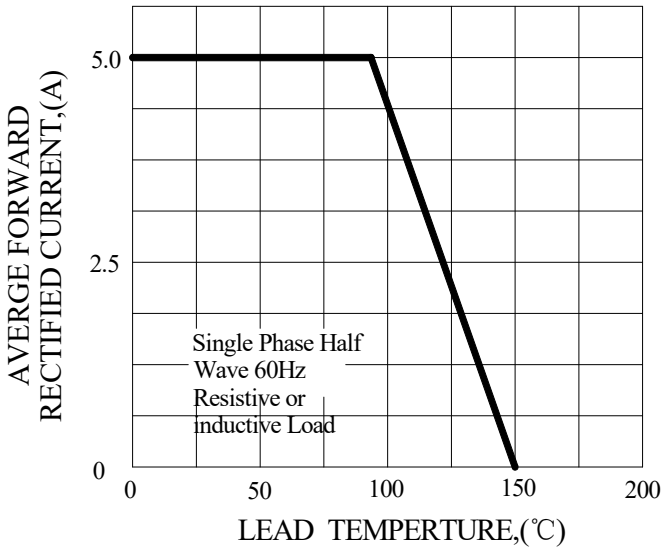


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

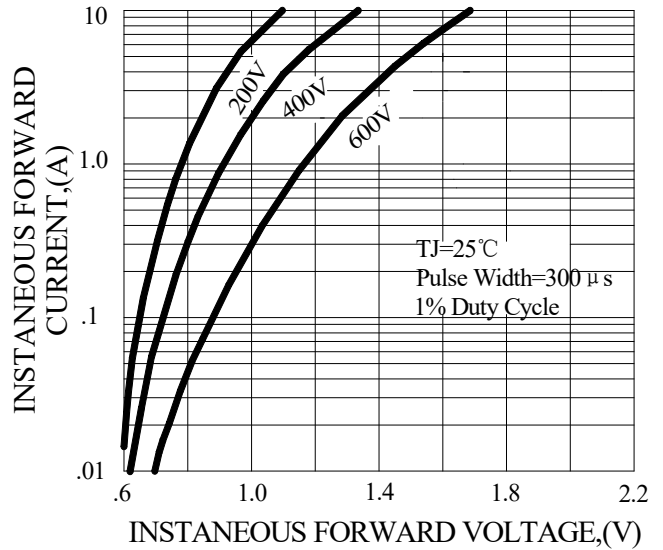


FIG.3-MAXIMUN NON-REPETITIVE FORWARD SURGE CURRENT

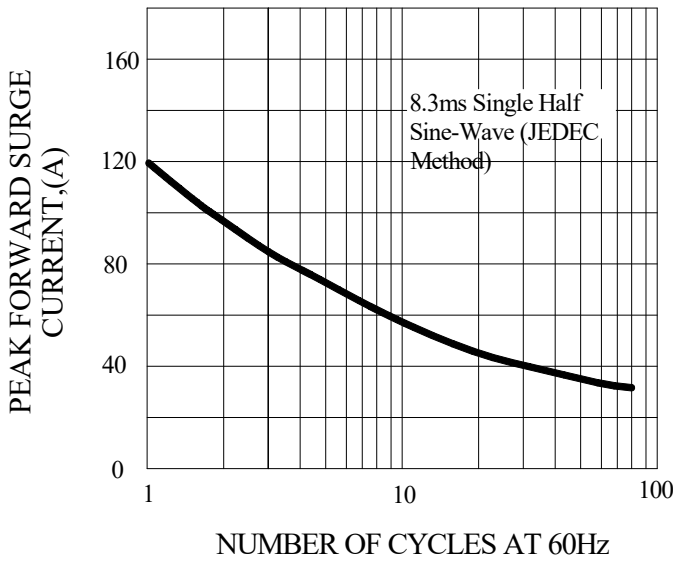


FIG.4-TYPICAL REVERSE CHARACTERISTICS

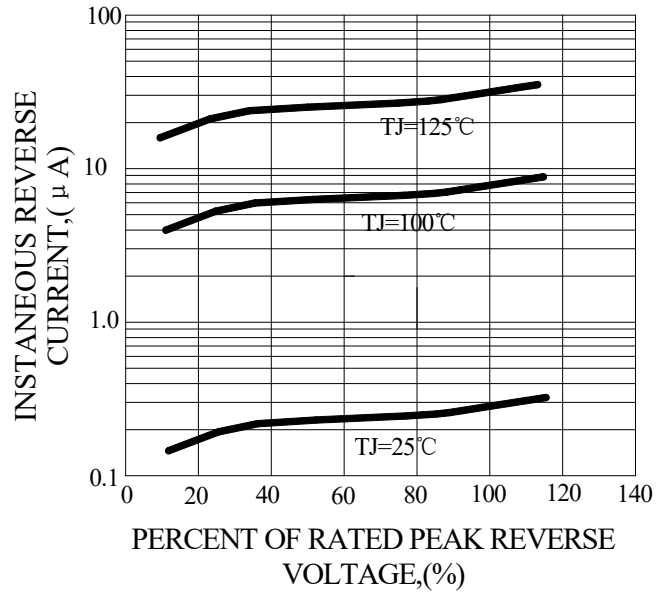
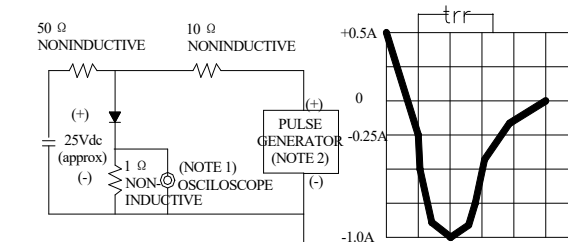


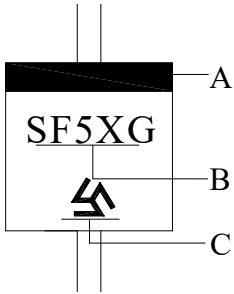
FIG.5-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES:1. Rise Time=7ns max, Input Impedance= 1 megohm.22pF.
2. Rise Time=10ns max, Source Impedance= 50 ohms.

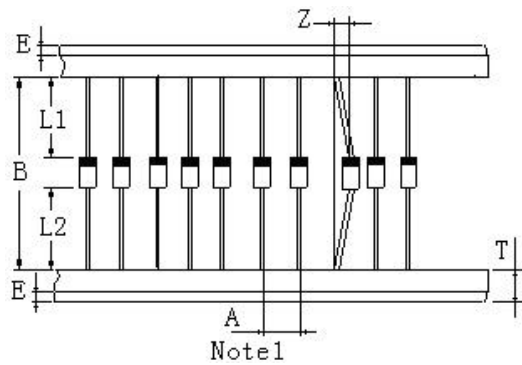
Marking and packaging illustration

1、Marking



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

2、Packaging



ITEM	SYMBOL	SPECIFICATIONS	
		(mm)	(inch)
Component alignment	Z	1.2max	0.048max
Tape width	T	6.0±0.4	0.236±0.016
Exposed adhesive	E	0.8max	0.032max
Body eccentricity	L1-L2	1.0max	0.040max
Component	A	10.0±0.5	0.4±0.02
Inner tap	B	52.0~53.5	2.06~2.11
NOTE: Each component lead shall be sandwiched between tapes for a minimum of 2.5mm (0.1inch)			