SF14GR THRU SF18GR

1.0AMP .GLASS PASSIVATED SUPER FAST RECTIFIER

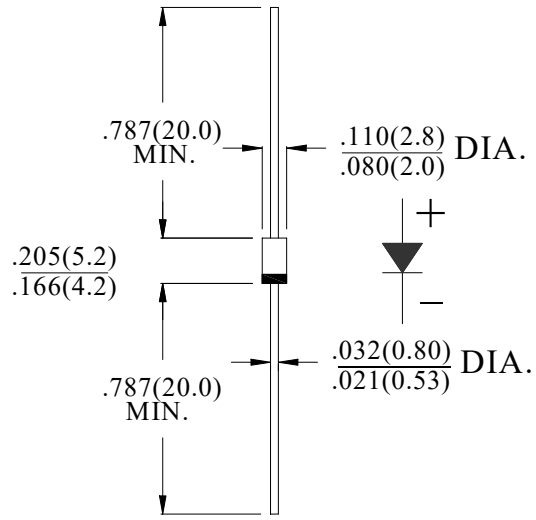
FEATURE

. 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

DO-41



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz,resistive or inductive load. For capacitive load, derate current by 20%

Type Number	SYMBOL	SF14GR	SF16GR	SF18GR	units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	200	400	600	V
Maximum RMS Voltage	V_{RMS}	140	280	420	V
Maximum DC blocking Voltage	V_{DC}	200	400	600	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	1.0			A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	30.0			A
Maximum forward Voltage at 1.0A DC	V_F	0.95	1.3	1.7	V
Maximum DC Reverse Current @T_J=25°C at rated DC blocking voltage @T_J=125°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	15		8	pF
Typical Thermal Resistance (Note 3)	$R_{(JA)}$	75			°C/W
	$R_{(JL)}$	25			
Storage Temperature	T_{STG}	-55 to +150			°C
Operation Junction Temperature	T_J	-55 to +150			°C

Note:

1. Test Conditions: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A
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

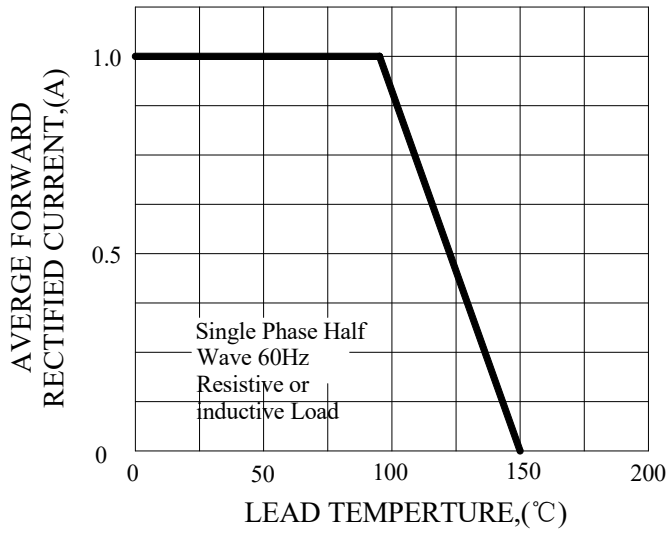


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

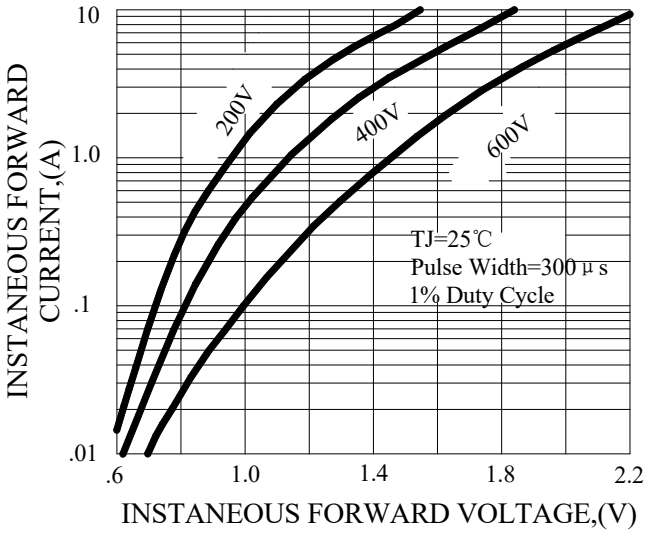


FIG.3-MAXIMUN NON-REPETITIVE FORWARD SURGE CURRENT

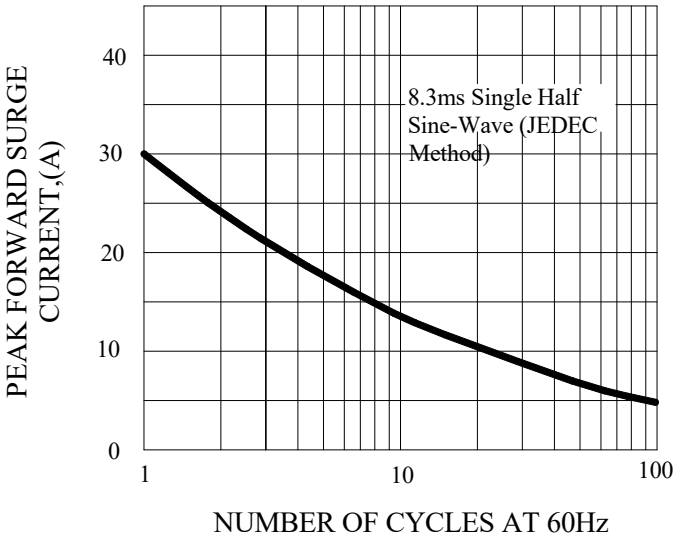


FIG.4-TYPICAL REVERSE CHARACTERISTICS

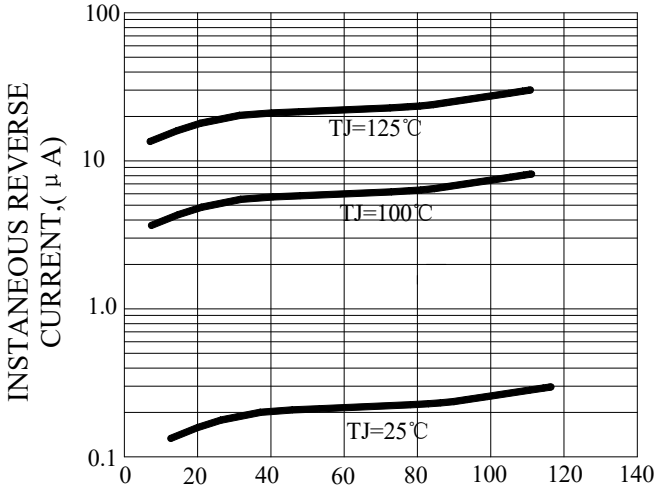
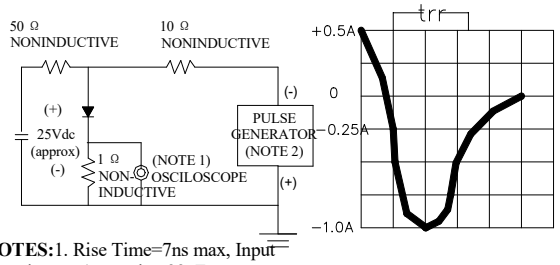


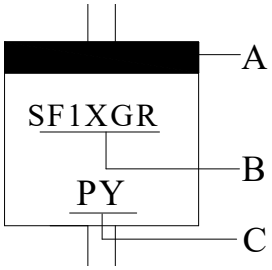
FIG.5-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERSITIC



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

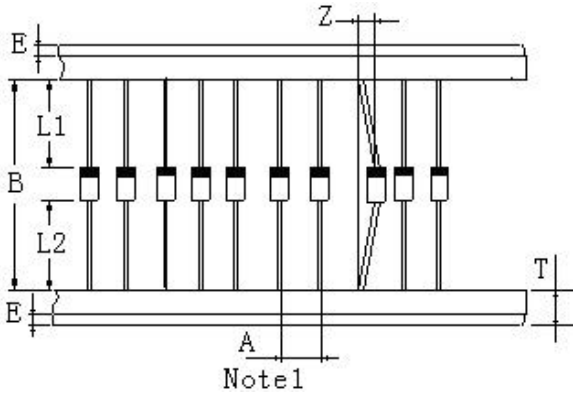
Marking and packaging illustration

1、Marking



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

2、Packaging



ITEM	SYMBOL	SPECIFICATIONS (mm)	SPECIFICATIONS (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	5.0±0.5	0.2±0.02
Inner tap	B	52.0~53.5	2.05~2.11
NOTE： Each component lead shall be sandwiched between tapes for a minimum of 2.5mm（0.1inch）			