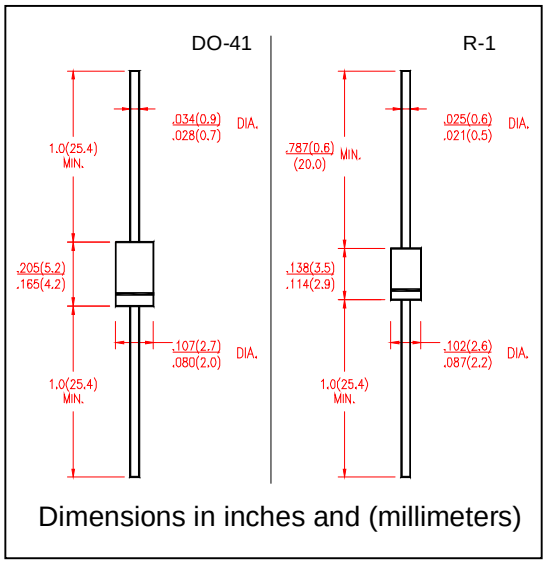
SUPER FAST GLASS PASSIVATED RECTIFIER

SF11G/RG THRU SF18G/RG

VOLTAGE RANGE **50 to 1000 Volts**
CURRENT **1.0 Ampere**

FEATURES

- Super fast switching speed
- Glass passivated chip junction
- Low power loss, high efficiency
- Low leakage
- High surge capacity
- High temperature soldering guaranteed
  260℃/10 second, 0.375″ (9.5mm) lead length
- SF11G Packing DO-41, SF11RG Packing R-1.



Dimensions in inches and (millimeters)

MECHANICAL DATA

- Case: Transfer molded plastic
- Epoxy: UL94V-0 rate flame retardant
- Polarity: Color Band denotes cathode end
- Lead: Plated axial lead, solderable per MIL-STD-202E method 208C
- Mounting position: Any
- Weight: 0.012ounce, 0.33 gram

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%

	SYMBOLS	SF 11G/RG	SF 12G/RG	SF 13G/RG	SF 14G/RG	SF 15G/RG	SF 16G/RG	SF 17G/RG	SF 18G/RG	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	150	200	300	400	500	600	Volts
Maximum RMS Voltage	V_{RMS}	35	70	105	140	210	280	350	420	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	100	200	300	400	500	600	Volts
Maximum Average Forward Rectified Current 0.375″ (9.5mm) lead length at T_A=55℃	$I_{(AV)}$	1.0								Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	30								Amps
Maximum Instantaneous Forward Voltage at 1.0A	V_F	0.95				1.25		1.7		Volts
Maximum DC Reverse Current at rated DC Blocking Voltage at T_A = 25℃	I_R	5.0								μA
Maximum DC Reverse Current at rated DC Blocking Voltage at T_A = 125℃	I_R	50								μA
Maximum Reverse Recovery Time Test conditions I_F=0.5A, I_R=1.0A, I_{RR}=0.25A	t_{rr}	35								nS
Typical Junction Capacitance (Measured at 1.0MHz and applied reverse voltage of 4.0V)	C_J	15				10				pF
Typical Thermal Resistance (NOTE 1)	$R_{\theta JC}$	60								℃/W
Operating Junction Temperature Range	T_J	(-55 to +150)								℃
Storage Temperature Range	T_{STG}	(-55 to +150)								℃

Notes:

1. Thermal resistance from junction to ambient with 0.375″ (9.5mm) lead length, PCB mounted.

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RATING AND CHRACTERISTIC CURVES SF11G/RG THRU SF18G/RG

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

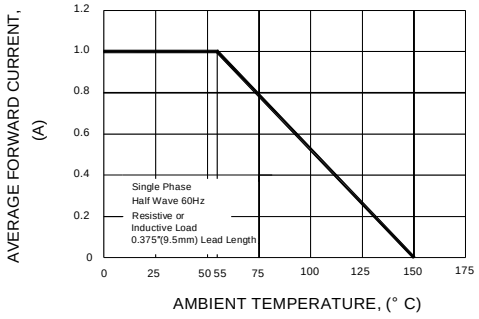


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

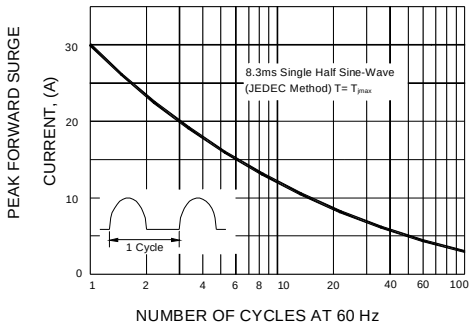


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

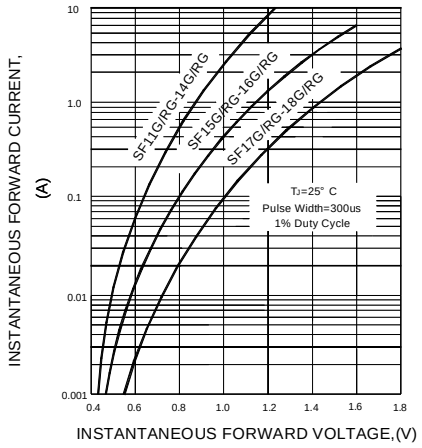


FIG.4-TYPICAL REVERSE CHARACTERISTICS

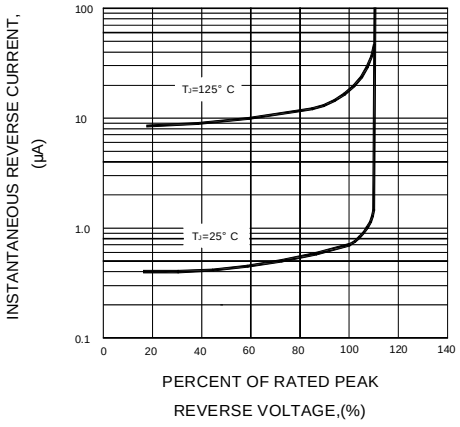
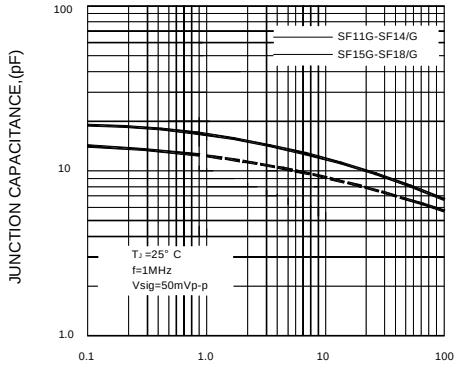
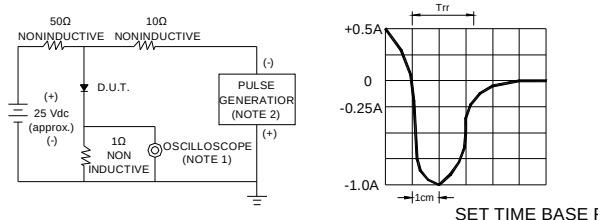


FIG.5-TYPICAL JUNCTION CAPACITANCE



F1G.6-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES : 1.Rise Time=7ns mas. Input Impedance= 1 magohm. 22pF
2.Rise time=10ns max. Source Impedance= 50 ohms

SET TIME BASE F 50/100ns/cm

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