



SUPER FAST GLASS PASSIVATED RECTIFIER

SF11G/RG THRU SF18G/RG

VOLTAGE RANGE

50 to 1000 Volts

CURRENT

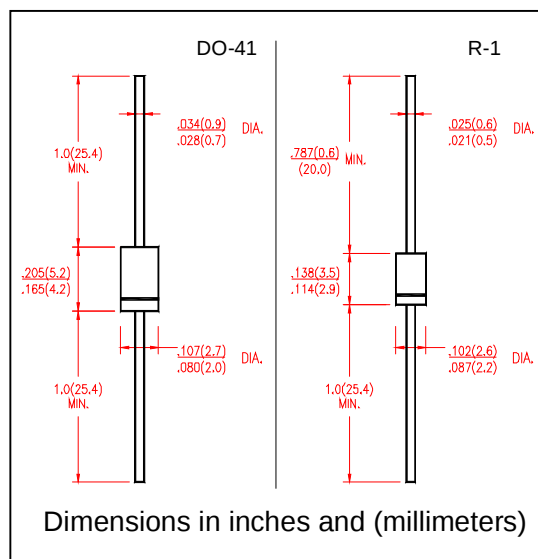
1.0 Ampere

FEATURES

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

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°C 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°C		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°C	I _R	5.0								μA
	T _A = 125°C		50								
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 _{θJC}	60								°C/W
Operating Junction Temperature Range		T _J	(-55 to +150)								°C
Storage Temperature Range		T _{STG}	(-55 to +150)								°C

Notes:

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



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RATING AND CHARACTERISTIC CURVES SF11G/RG THRU SF18G/RG

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

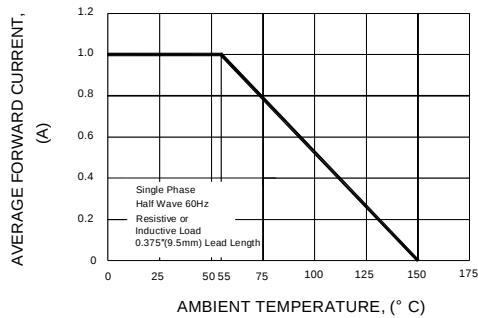


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

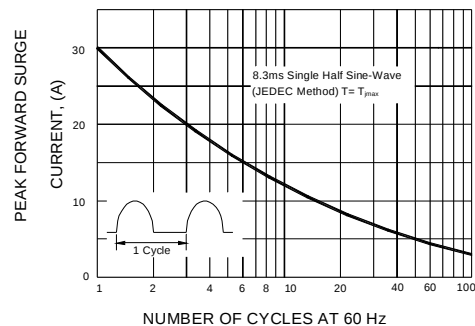


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

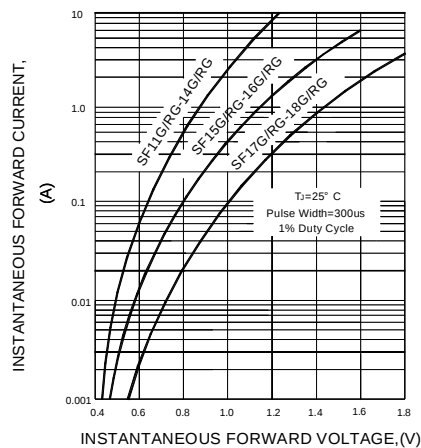


FIG.4-TYPICAL REVERSE CHARACTERISTICS

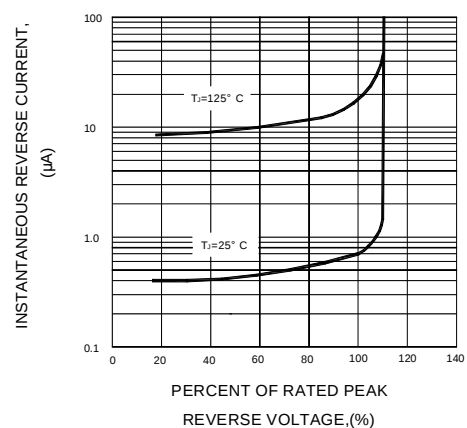


FIG.5-TYPICAL JUNCTION CAPACITANCE

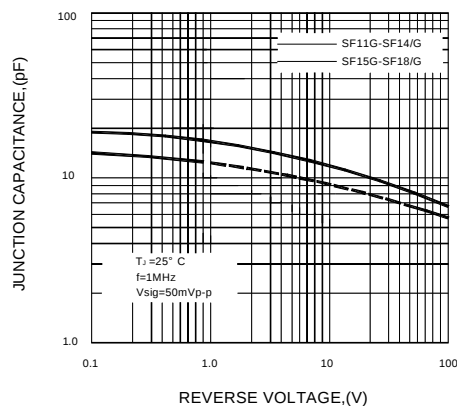


FIG.6-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

