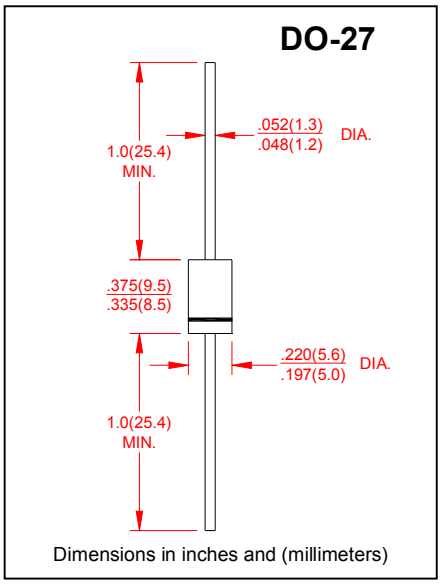
WEE Technology Company Limited

Ultra-Fast Recovery Rectifiers

SF101G THRU SF108G

VOLTAGE RANGE 50 to 600 Volts
CURRENT 10.0 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 seconds, 0.375″ (9.5mm) lead length

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: 0.042ounce, 1.19 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 101G	SF 102G	SF 103G	SF 104G	SF 105G	SF 106G	SF 107G	SF 108G	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	150	200	300	400	500	600	Volts
Maximum Average Forward Rectified Current 0.375"(9.5mm) lead length at T_A=100℃		$I_{(AV)}$	10.0								Amps
Peak Forward Surge Current 8.3mS single half sine wave superimposed on rated load (JEDEC method)		I_{FSM}	175								Amps
Maximum Instantaneous Forward Voltage at 10.0A		V_F	0.95				1.25		1.70		Volts
Maximum DC Reverse Current at rated DC blocking Voltage at	T_A = 25℃	I_R	5.0								μA
	T_A = 125℃		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	50				30				pF
Typical Thermal Resistance (NOTE 1)		$R_{\theta JA}$	30								℃/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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FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

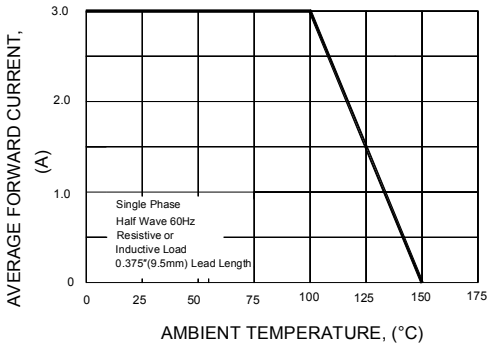


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

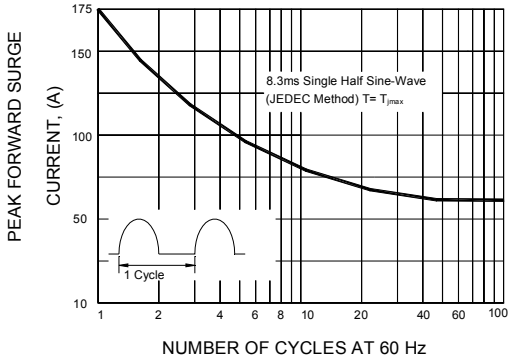


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

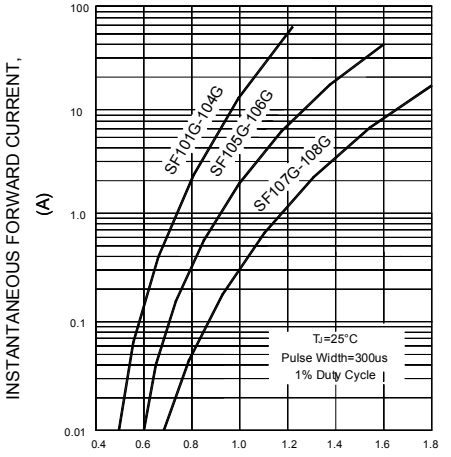


FIG.4-TYPICAL REVERSE CHARACTERISTICS

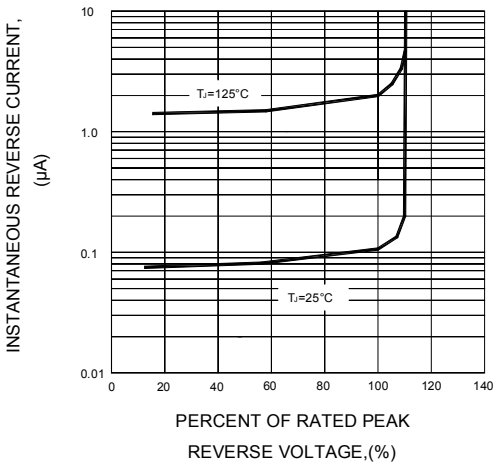
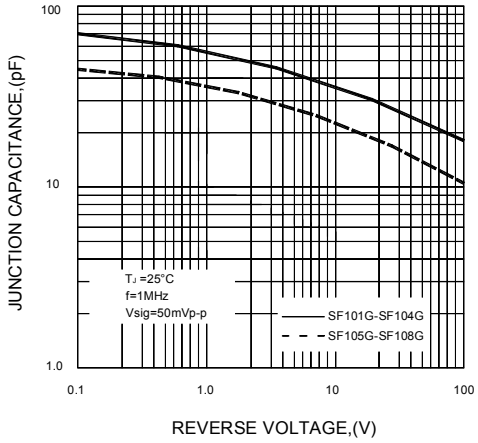
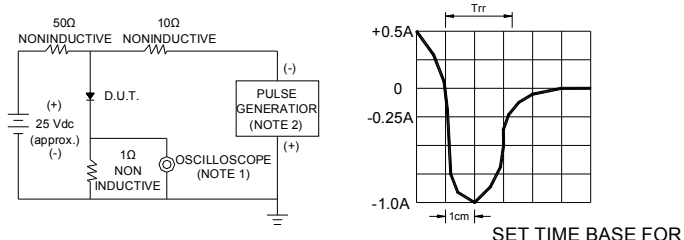


FIG.5-TYPICAL JUNCTION CAPACITANCE



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



SET TIME BASE FOR 50/100ns/cm

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

Note: Specifications are subject to change without notice. For more detail and update, please visit our website.