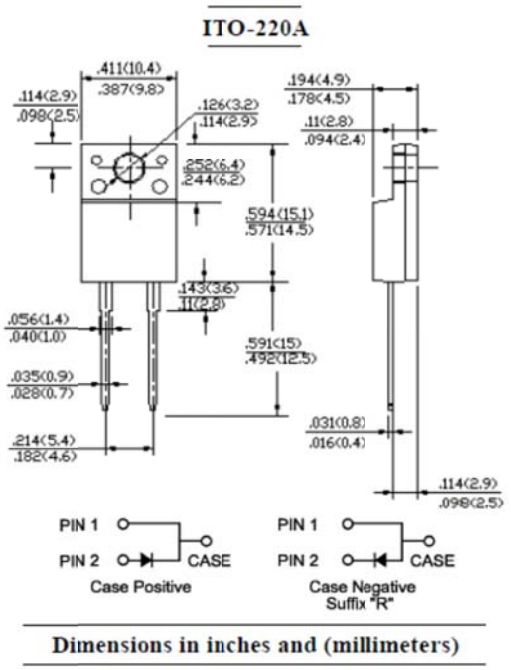
SFF101T THRU SFF108T

GLASS PASSIVATED SUPER FAST RECTIFIERS
Reverse Voltage - 50 to 600 V
Forward Current - 10 A



Features

- Plastic package has Underwriters Laboratory Flammabiliy Classification 94V-0 ctilizing Flame Retardant Epoxy Molding Compound.
- Superfast switching time for high efficiency.
- Low forward voltage drop and high current capability.
- High surge capacity.
- Low reverse leakage current.

Mechanical Data

- **Case:** Molded plastic, ITO-220A
- **Epoxy:** UL 94V-0 rate flame retardant.
- **Terminals:** leads solderable per MIL-STD-202, method 208 guaranteed
- **Polarity:** As marked
- **Mounting Position:** Any

Absolute Maximum Ratings and 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%.

Parameter		Symbols	SFF101T	SFF102T	SFF103T	SFF104T	SFF105T	SFF106T	SFF107T	SFF108T	Units
Maximum Recurrent Peak Reverse Voltage		V_{RRM}	50	100	150	200	300	400	500	600	V
Maximum RMS Voltage		V_{RMS}	35	70	105	140	210	280	350	420	V
Maximum DC Blocking Voltage		V_{DC}	50	100	150	200	300	400	500	600	V
Maximum Average Forward Rectified Current at T_C = 100 °C		$I_{F(AV)}$	10								A
Peak Forward Surge Current 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)		I_{FSM}	125								A
Maximum Forward Voltage at 10 A DC		V_F	0.95				1.3		1.7		V
Maximum Reverse Current at Rated DC Blocking Voltage	at T_A = 25 °C	I_R	10								μA
	at T_A = 100 °C		100								
Typical Junction Capacitance [1]		C_J	70				50				pF
Maximum Reverse Recovery Time [2]		t_{rr}	35				40				ns
Typical Thermal Resistance [3]		$R_{\theta JC}$	3								°C/W
Operating and Storage Temperature Range		T_j,T_{stg}	- 55 to + 150								°C

[1] Measured at 1 MHz and applied reverse voltage of 4 VDC.

[2] Reverse recovery test conditions: I_F = 0.5 A, I_R = 1 A, I_{rr} = 0.25 A.

[3] Thermal resistance from junction to case per leg mounted on heatsink.

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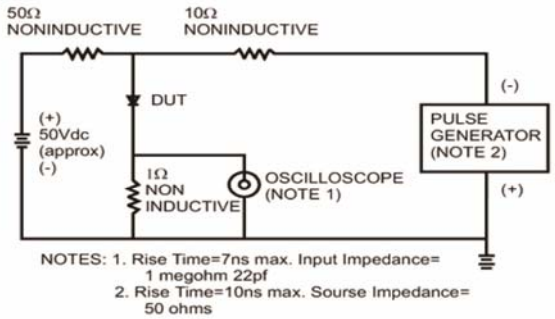
FIG.1- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



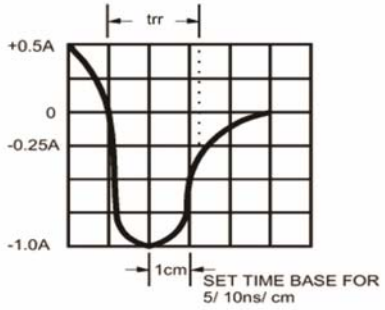


FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

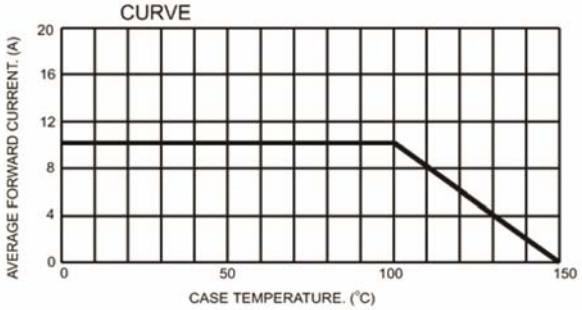


FIG.3- TYPICAL REVERSE CHARACTERISTICS

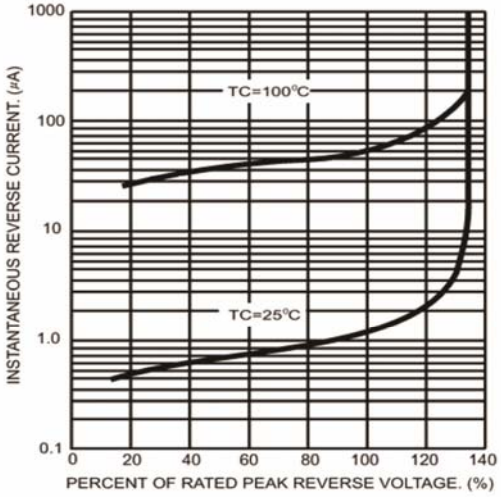


FIG.4- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

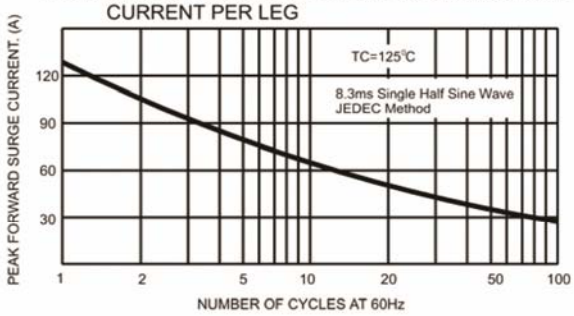


FIG.6- TYPICAL FORWARD CHARACTERISTICS PER LEG

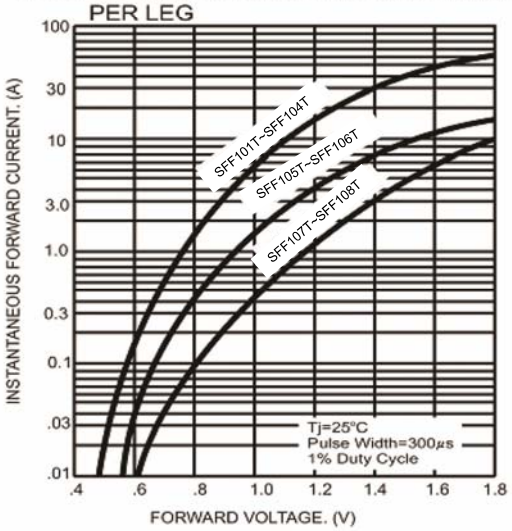


FIG.5- TYPICAL JUNCTION CAPACITANCE PER LEG