

GLASS PASSIVATED SUPER FAST RECTIFIER

VOLTAGE 200 Volts CURRENT 10 Ampere

FEATURES

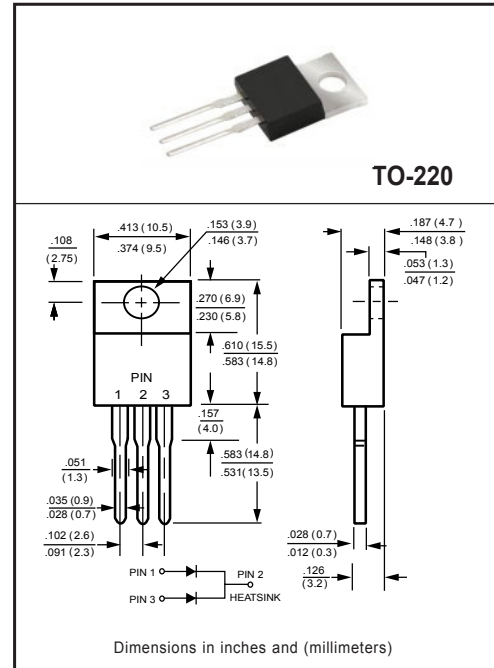
- * Low switching noise
- * Low forward voltage drop
- * Low thermal resistance
- * High current capability
- * Super fast switching speed
- * High reliability
- * Good for switching mode circuit

MECHANICAL DATA

- * Case: TO-220 molded plastic
- * Epoxy: Device has UL flammability classification 94V-0
- * Lead: MIL-STD-202E method 208C guaranteed
- * Mounting position: Any
- * Weight: 2.24 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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



MAXIMUM RATINGS (@ TA=25 °C unless otherwise noted)

RATINGS	SYMBOL	SF104C	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	200	Volts
Maximum RMS Voltage	V _{RMS}	140	Volts
Maximum DC Blocking Voltage	V _{DC}	200	Volts
Maximum Average Forward Rectified Current at T _C = 125°C	I _O	10.0	Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	150	Amps
Typical Thermal Resistance (Note 4)	R _{θJA}	15	°C/W
	R _{θJC}	3	
Typical Junction Capacitance (Note 2)	C _J	50	pF
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to + 150	°C

ELECTRICAL CHARACTERISTICS (@TA=25 °C unless otherwise noted)

CHARACTERISTICS	SYMBOL	SF104C	UNITS
Maximum Instantaneous Forward Voltage at 5.0A DC	V _F	1.0	Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	I _R	@T _A = 25°C	10
		@T _A = 100°C	500
Maximum Reverse Recovery Time (Note 1)	t _{rr}	35	nSec

NOTES : 1. Test Conditions: I_F = 0.5A, I_R = -1.0A, I_{RR} = -0.25A
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.
3. "Fully ROHS compliant", "100% Sn plating (Pb-free)".
4. Thermal Resistance : Heat-sink mounted.

RATING AND CHARACTERISTICS CURVES (SF104C)

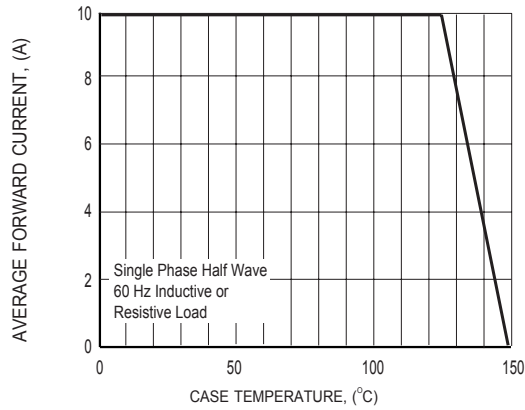


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

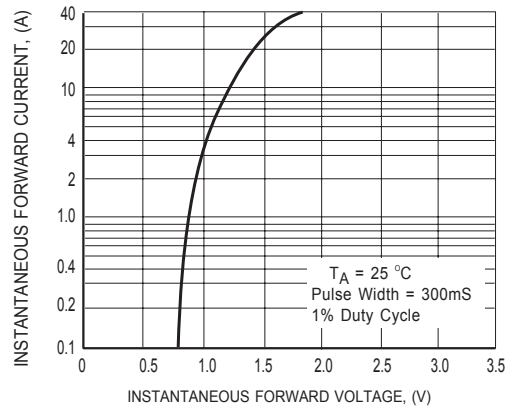


FIG.2 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

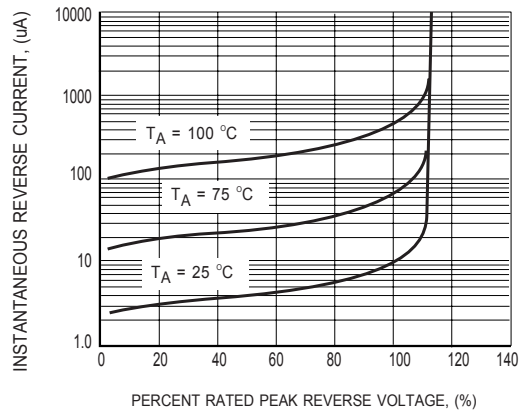


FIG.3 TYPICAL REVERSE CHARACTERISTICS

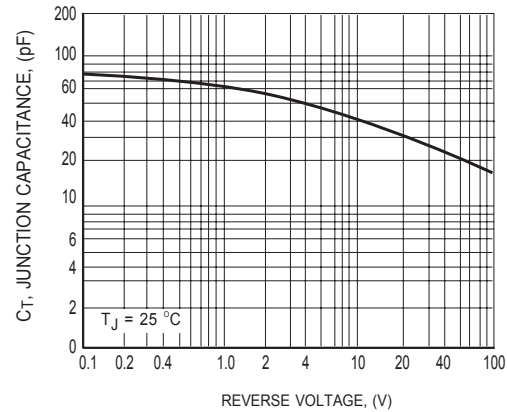


FIG.4 TYPICAL JUNCTION CAPACITANCE

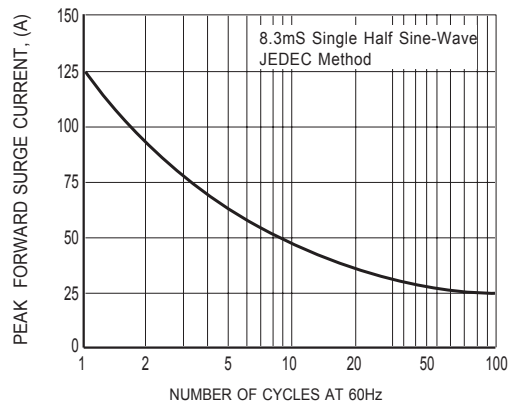


FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

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