

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-O
- * Lead: MIL-STD-202E method 208C guaranteed
- * Mounting position: Any
- * Weight: 2.24 grams

TO-220 .187 (4.7) .413 (10.5) .148 (3.8) .374 (9.5) (2.75) .053 (1.3) .230 (5.8) .610 (15.5) .583 (14.8) PIN .<u>157</u> (4.0) 028 (0.7) .102 (2.6) .126 (3.2) Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 $^{\circ}\text{C}$ 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	Io	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 _{θ JA}	15	
	R _θ JC	3	°C/W
Typical Junction Capacitance (Note 2)	СЈ	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	@T _A = 25°C	- I _R -	10	uAmps
	@T _A = 100°C		500	
Maximum Reverse Recovery Time (Note 1)		trr	35	nSec

NOTES: 1. Test Conditions: I_F = 0.5A, I_R = -1.0A, I_{RR} = -0.25A

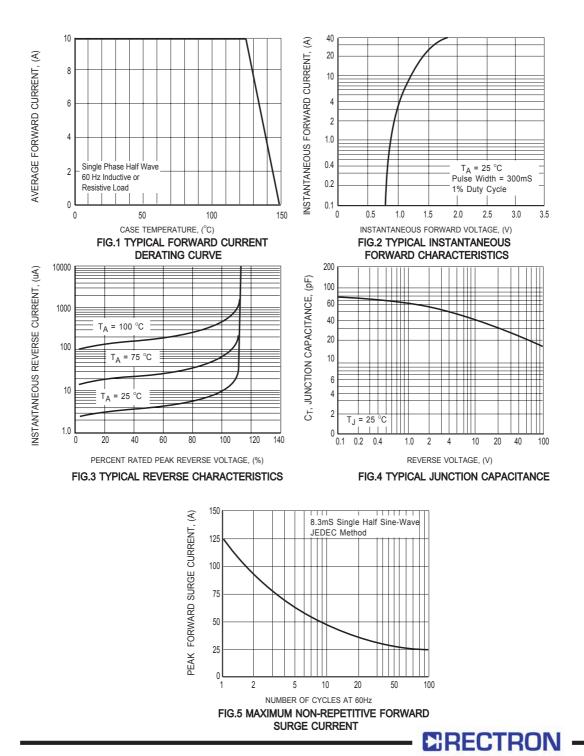
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.

3. "Fully ROHS compliant", "100% Sn plating (Pb-free)".

4. Thermal Resistance: Heat-sink mounted.

2007-1

RATING AND CHARACTERISTICS CURVES (SF104C)



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