

Pb Free Plating Product

SF104C thru SF108C



10.0 Ampere Dual Common Cathode Super Fast Recovery Rectifier

<p>Features</p> <ul style="list-style-type: none"> ★ Fast switching for high efficiency ★ Low forward voltage drop ★ High current capability ★ Low reverse leakage current ★ High surge current capability <p>Application</p> <ul style="list-style-type: none"> ★ Automotive Inverters/Solar Inverters ★ Plating Power Supply, SMPS and UPS ★ Car Audio Amplifiers and Sound Device Systems 	<p>Mechanical Data</p> <ul style="list-style-type: none"> ★ Case: Heatsink TO-220AB ★ Epoxy: UL 94V-0 rate flame retardant ★ Terminals: Solderable per MIL-STD-202 method 208 ★ Polarity: As marked on diode body ★ Mounting position: Any ★ Weight: 2.2 gram approximately 	<p>TO-220AB Unit: inch (mm)</p> <p>Dimensions (inch/mm): .419(10.66), .387(9.85), .139(3.55) MIN, .269(6.85), .228(5.75), .624(15.87), .548(13.93), .196(5.00), .163(4.16), .054(1.39), .045(1.15), .038(0.96), .019(0.50), .177(4.5) MAX, .50(12.7) MIN, .025(0.65) MAX, .1(2.54), .1(2.54)</p> <p>Polarity Diagrams: ① ② ③ Case Positive Common Cathode Suffix "C" Negative Common Anode Suffix "A" Doubler Tandem Polarity Suffix "D"</p>
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MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

	SYMBOL	SF104C	SF106C	SF108C	UNIT
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	200	400	600	V
Maximum RMS Voltage	V _{RMS}	140	280	420	V
Maximum DC Blocking Voltage	V _{DC}	200	400	600	V
Maximum Average Forward Rectified Current T _c =100°C	I _{F(AV)}	10.0			A
Peak Forward Surge Current, 8.3ms single Half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	100			A
Maximum Instantaneous Forward Voltage @ 5.0 A	V _F	0.98	1.3	1.7	V
Maximum DC Reverse Current @T _J =25°C At Rated DC Blocking Voltage @T _J =125°C	I _R	10.0 250			uA uA
Maximum Reverse Recovery Time (Note 1)	T _{rr}	35			nS
Typical junction Capacitance (Note 2)	C _J	65			pF
Typical Thermal Resistance (Note 3)	R _{θJC}	2.2			°CW
Operating Junction and Storage Temperature Range	T _J , T _{STG}	-55 to +150			°C

NOTES : (1) Reverse recovery test conditions I_F = 0.5A, I_R = 1.0A, I_{rr} = 0.25A.
 (2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts DC.
 (3) Thermal Resistance junction to case.

FIG.1 - FORWARD CURRENT DERATING CURVE

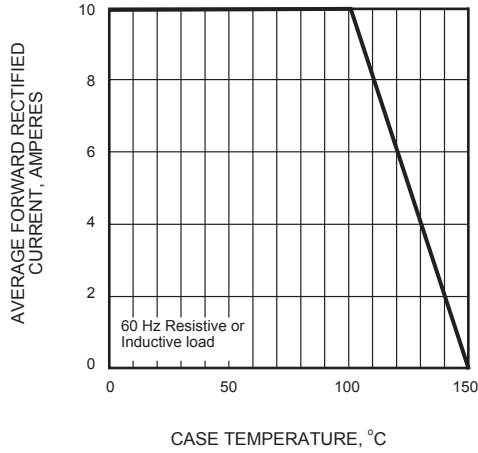


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

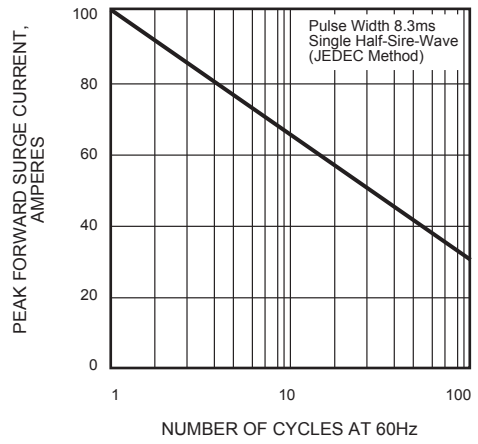


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

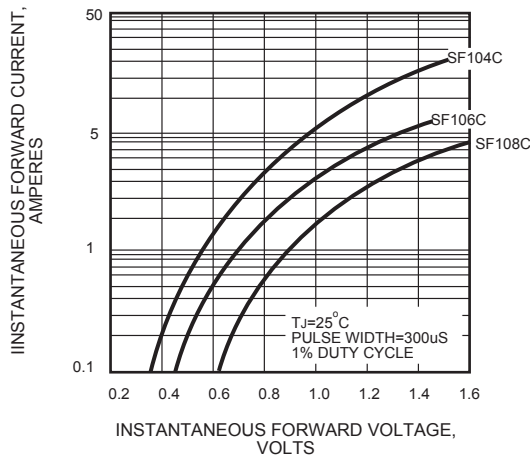


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

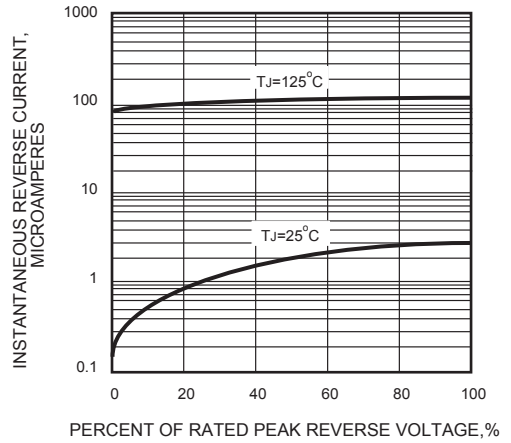


FIG.5 - TYPICAL JUNCTION CAPACITANCE

