SF161 THRU SF167

16 A Glass Passivated Super Fast Rectifiers

Voltage Range 50 to 600 Volts
Current 16.0 Amperes

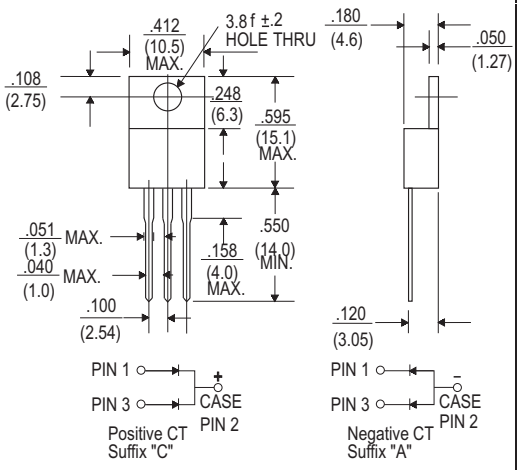
Features

* Low forward voltage drop
* High current capability
* High reliability
* High surge current capability

Mechanical Data

* Case: Molded plastic
* Epoxy: UL 94V-O rate flame retardant
* Terminals: Leads, solderable per MIL- STD-202, Method 208 guaranteed
* Polarity: As marked
* High temperature soldering guaranteed: 250°C/10 seconds/.16",(4.06mm) from case.
* Weight: 2.24 grams

TO-220



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating 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%

Type Number	SF161	SF162	SF163	SF164	SF165	SF166	SF167	Units
Maximum Recurrent Peak Reverse Voltage	50	100	150	200	300	400	600	V
Maximum RMS Voltage	35	70	105	140	210	280	420	V
Maximum DC Blocking Voltage	50	100	150	200	300	400	600	V
Maximum Average Forward Rectified Current @ T_C=100°C	16.0							A
Peak Forward Surge Current, 8.3 ms SingleHalf Sine-wave Superimposed on Rated Load (JEDEC method)	80							A
Maximum Instantaneous Forward Voltage @ 8.0A	0.975				1.3		1.7	V
Maximum DC Reverse Curren@ T_A=25°C	10							uA
At Rated DC Blocking Voltage @ T_A=100°C	400							uA
Maximum Reverse Recovery Time (Note 1)	35							nS
Typical Junction Capacitance (Note 2)	80				60			pF
Typical Thermal Resistance R θJC (Note 3)	2.5							°C /W
Operating Temperature Range T_J	-55 to +150							°C
Storage Temperature Range 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 MHz and Applied Reverse Voltage of 4.0 Volts D.C.
3. Thermal Resistance from Junction to Case Mounting on Heatsink.

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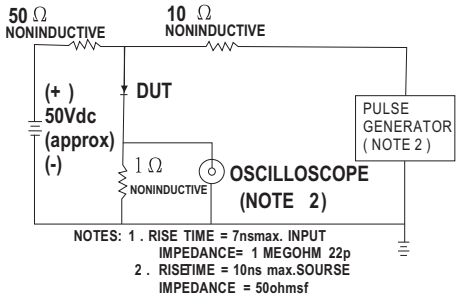
RATINGS AND CHARACTERISTIC CURVES (SF161 THRU SF167)

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



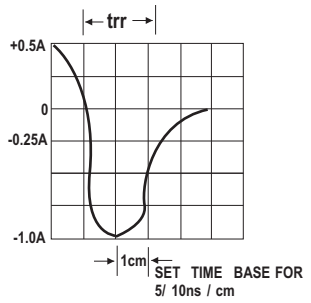


FIG . 2 -MAXIMUM AVERAGE FORWARD CURRENT DERATING

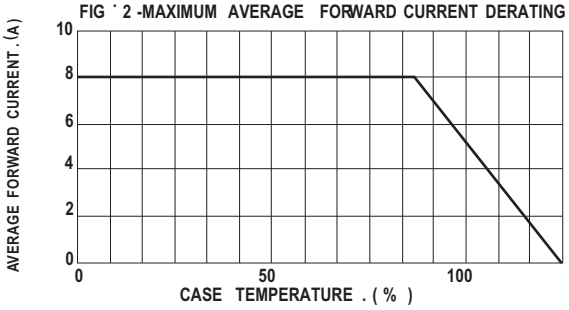


FIG . 3 -TYPICAL REVERSE CHARACTERISTICS

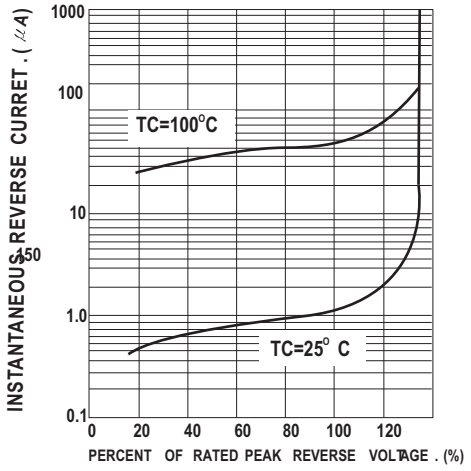


FIG . 4 -MAXIMUM NON - REPETITIVE FORWARD SURGE CURRENT

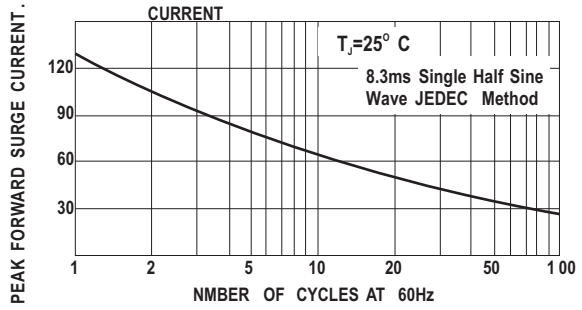


FIG . 5 -TYPICAL JUNCTIOON CAPACITANCE

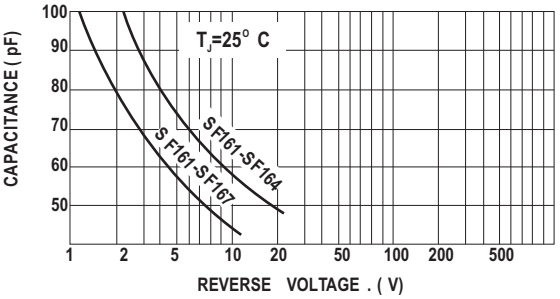


FIG . 6 -TYPICAL FRWARD CHARACTERISTICS