SF161CT THRU SF167CT

16.0 AMP SUPER FAST RECTIFIERS



FEATURES

* Low forward voltage drop
* High current capability
* High reliability
* High surge current capability
* Good for switching mode application

MECHANICAL DATA

* Case: Molded plastic
* Epoxy: UL 94V-0 rate flame retardant
* Lead: Lead solderable per MIL-STD-202, method 208 guranteed
* Polarity: As Marked
* Mounting position: Any

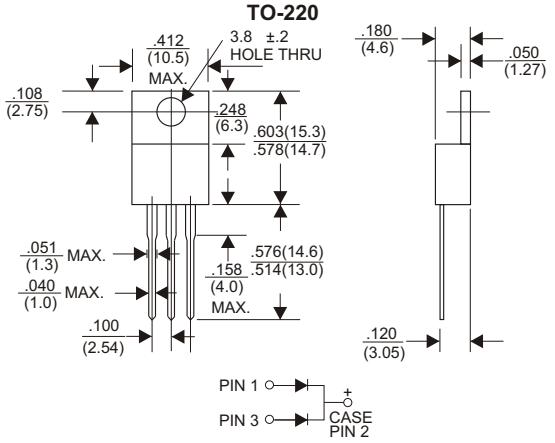
VOLTAGE RANGE

50 to 600 Volts

CURRENT

16.0 Amperes

TO-220



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

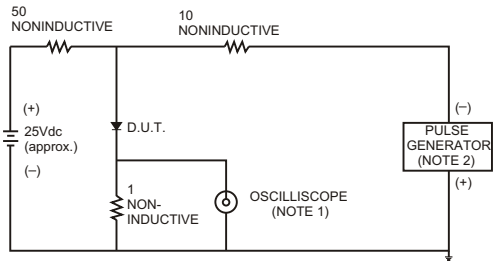
Rating 25℃ ambient temperature uniess otherwies specified.
Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

TYPE NUMBER	SF 161CT	SF 162CT	SF 163CT	SF 164CT	SF 165CT	SF 166CT	SF 167CT	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 at Tc=100℃	16.0							A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	125							A
Maximum Instantaneous Forward Voltage at 8.0A	1.0				1.3		1.7	V
Maximum DC Reverse Current Tc=25℃	10							μA
at Rated DC Blocking Voltage Tc=100℃	500							μA
Maximum Reverse Recovery Time (Note 1)	35				50			nS
Typical Junction Capacitance (Note 2)	60							PF
Typical Thermal Resistance RθJC	2.5							℃/W
Operating and Storage Temperature Range T_J, T_{STG}	-65 — +150							℃

NOTES:
1. Reverse Recovery Time test condition: IF=0.5A, IR=1.0A, IRR=0.25A
2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

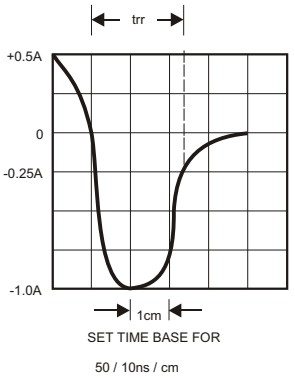
RATING AND CHARACTERISTIC CURVES (SF161CT THRU SF167CT)

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



NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm.22pF.

2. Rise Time= 10ns max., Source Impedance= 50 ohms.



SET TIME BASE FOR

50 / 10ns / cm

FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

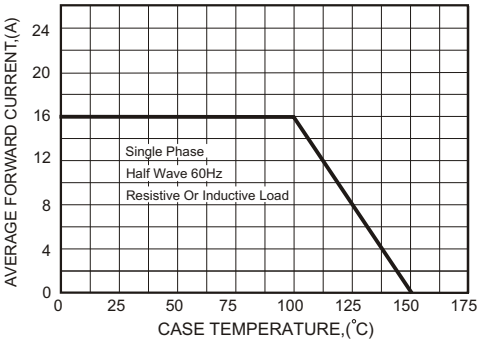


FIG.3-TYPICAL FORWARD CHARACTERISTICS

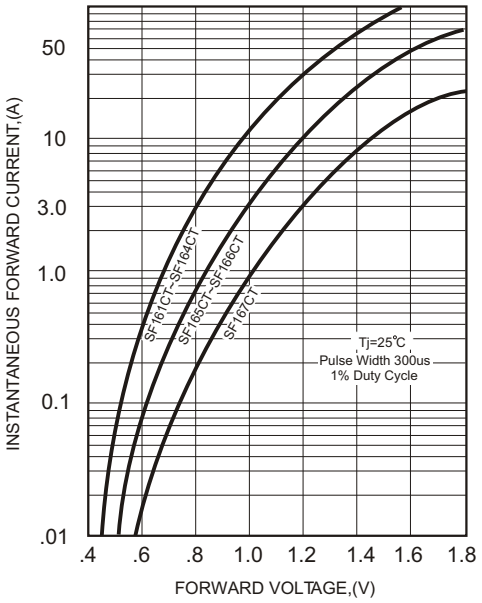


FIG.4-TYPICAL REVERSE CHARACTERISTICS

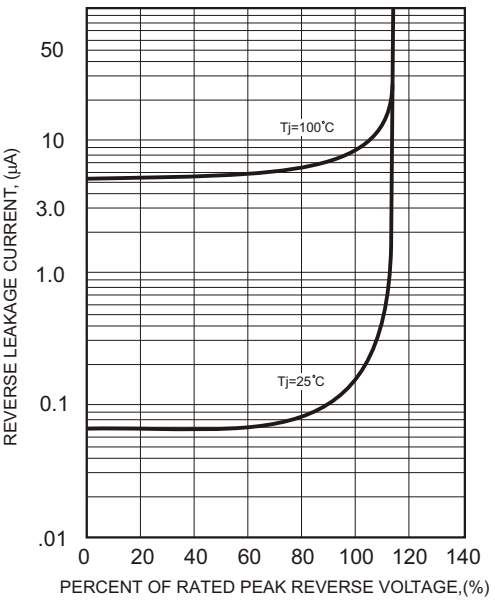


FIG.5-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

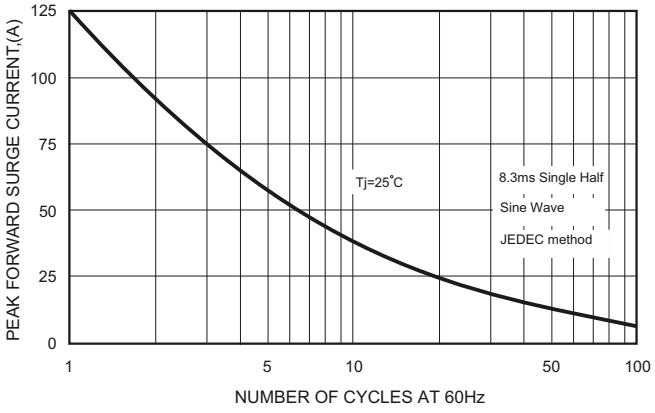


FIG.6-TYPICAL JUNCTION CAPACITANCE

