

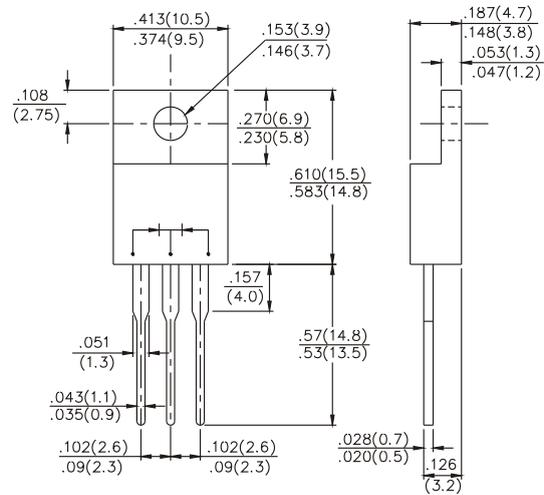
SF1601CT thru SF1607CT

SUPERFAST RECOVERY RECTIFIER

VOLTAGE - 50 TO 600 VOLTS CURRENT - 16 AMPERES



TO-220AB



Dimensions in inches and (millimeters)

FEATURES

- Low forward voltage drop
- High Current Capability
- High reliability
- High surge Current Capability
- Good for switching mode application
- High temperature soldering : 260°C/10seconds at terminals
- Pb free product are available : 99% Sn above can meet RoHS Environment substance directive request

MECHANICAL DATA

Case : TO220AB Molded plastic
 Epoxy : UL 94V-0 rate flame retardant
 Lead : Lead solderable per MIL-STD-202, Method 208 guaranteed
 Polarity : As Marked
 Mounting Position : Any
 Weight : 2.24gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

PARAMETER	SF 1601CT	SF 1602CT	SF 1603CT	SF 1604CT	SF 1605CT	SF 1606CT	SF 1607CT	UNITS
Maximum Repetitive Peak Reverse Voltage	50	100	150	200	300	400	600	Volts
Maximum RMS Voltage	35	70	105	140	210	320	420	Volts
Maximum DC Blocking Voltage	50	100	150	200	300	400	600	Volts
Maximum Average Forward Rectified Current .375" (9.5mm) Lead Length at T _c =100°C	16							Amps
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	125							Amps
Maximum Instantaneous Forward Voltage at 8.0A	0.95				1.3		1.7	Volts
Maximum DC Reverse Current T _A =25°C at Rated DC Blocking Voltage T _A =100°C				10 500				μA
Typical Junction Capacitance (Note 1)	62							pF
Maximum Reverse Recovery Time (Note 2)	35				50			nS
Typical Thermal Resistance Note R _{θJC}	3.0							°C / W
Operating and Storage Temperature Range T _J ,T _{STG}	-55 to +150							°C

NOTES :

1. Measured at 1MHz and applied reverse Voltage of 4.0V D.C
2. Reverse Recovery Time test condition I_F=0.5A , I_R=1.0A , I_{RR}=0.25A
3. Thermal Resistance Junction to CASE

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RATINGS AND CHARACTERISTIC CURVES SF1601CT THRU SF1607CT

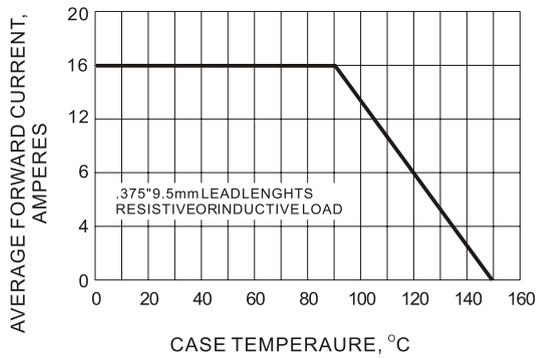


Fig.1- FORWARD CURRENT DERATING CURVE

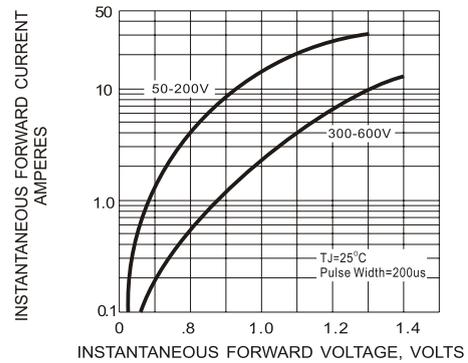


Fig.2- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

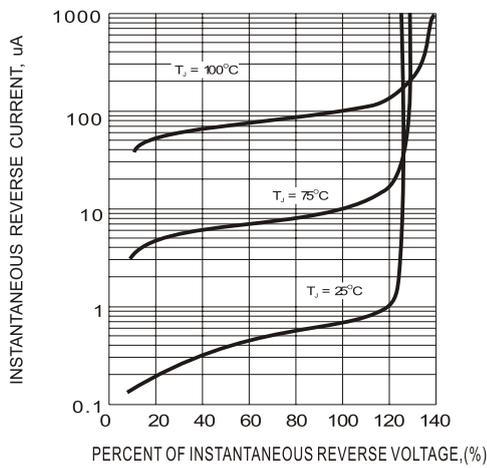


Fig.3- TYPICAL REVERSE CHARACTERISTIC

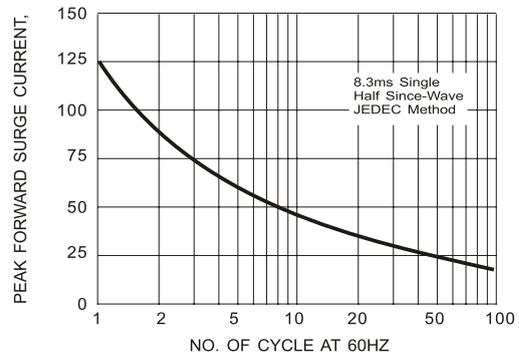


Fig.4- TMAXIMUM NON - REPETITIVE SURGE CURRENT

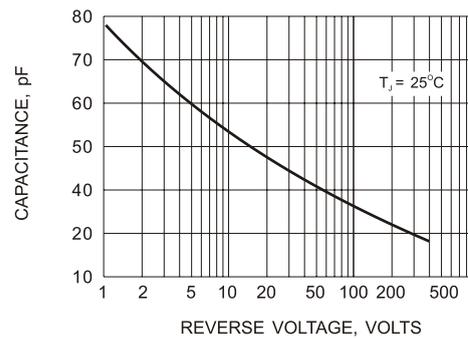


Fig.5- TYPICAL JUNCTION CAPACITANCE