

Super Fast Recovery Rectifiers

**Reverse Voltage - 50 to 600 Volts
Forward Current - 16.0 Amperes**

Features

- Fast switching for high efficiency
- Low cost
- Low reverse leakage current
- High current capability
- Low forward voltage drop
- Meet UL flammability classification 94V-0

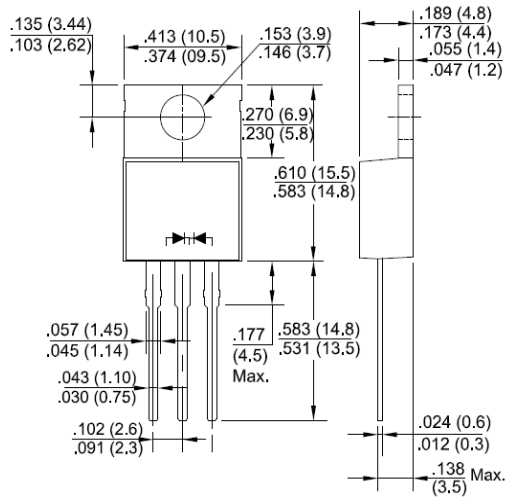
Mechanical Data

- Case: TO-220AB Molded plastic
- Polarity: Polarity: As marked on the body
- Mounting position: Any

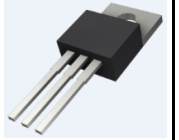
Applications

- For use in SMPS, high frequency inverters, PWM and polarity protection applications

TO-220AB



**RoHS
COMPLIANT**



Package Outline Dimensions in Inches (Millimeters)

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%.

Characteristics	Symbol	SF 1601CT	SF 1602CT	SF 1603CT	SF 1604CT	SF 1605CT	SF 1606CT	SF 1608CT	Unit
Maximum Repetitive Peak Reverse Voltage	VRRM	50	100	150	200	300	400	600	V
Maximum RMS Voltage	VRMS	35	70	105	140	210	280	420	V
Maximum DC Blocking Voltage	VDC	50	100	150	200	300	400	600	V
Maximum Average Forward Rectified Current @ TA=75°C	I(AV)	16.0							A
Peak Forward Surge Current, 8.3mS Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method)	IFSM	125							A
Peak Forward Voltage at 8.0A DC (Note1)	VF	1.0			1.3		1.7		V
Maximum DC Reverse Current @TJ=25°C	IR	10							µA
at Rated DC Blocking Voltage @TJ=100°C		150							
Maximum Reverse Recovery Time (Note 2)	TRR	35							nS
Typical Junction Capacitance (Note3)	CJ	40							pF
Typical Thermal Resistance Junction to Ambient	RθJA	2.5							°C/W
Operating Junction Temperature Range	TJ,TSTG	-55 to + 150							°C

Notes: 1. 300uS pulse width, 2%duty cycle.

2. Measured with IF=0.5A,IR=1A,IRR=0.25A .
3. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.
4. The typical data above is for reference only



Fig. 1 - Forward Current Derating Curve

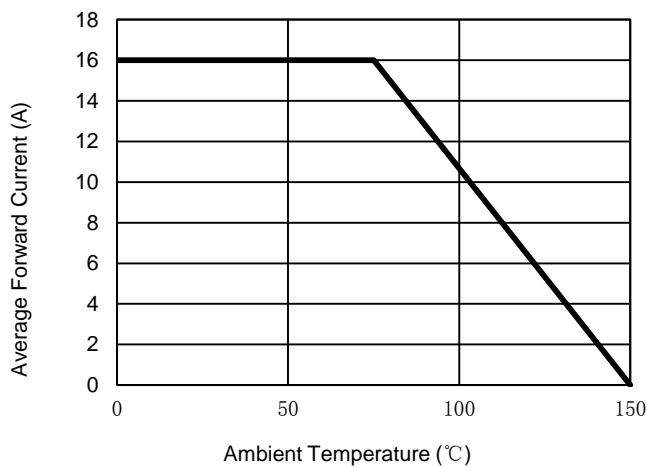


Fig. 2 - Maximum Non-Repetitive Surge Current

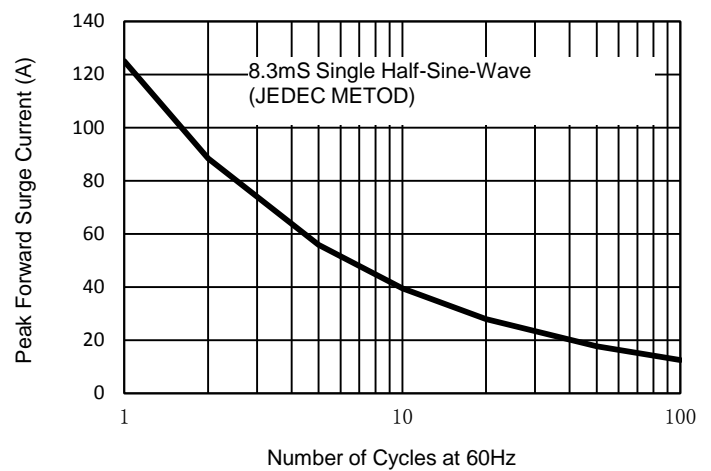


Fig. 3 - Typical Reverse Characteristics

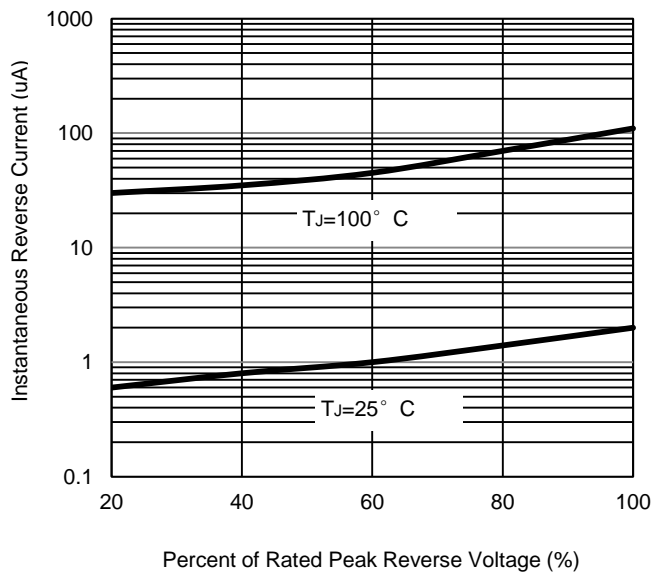


Fig. 4 - Typical Forward Characteristics

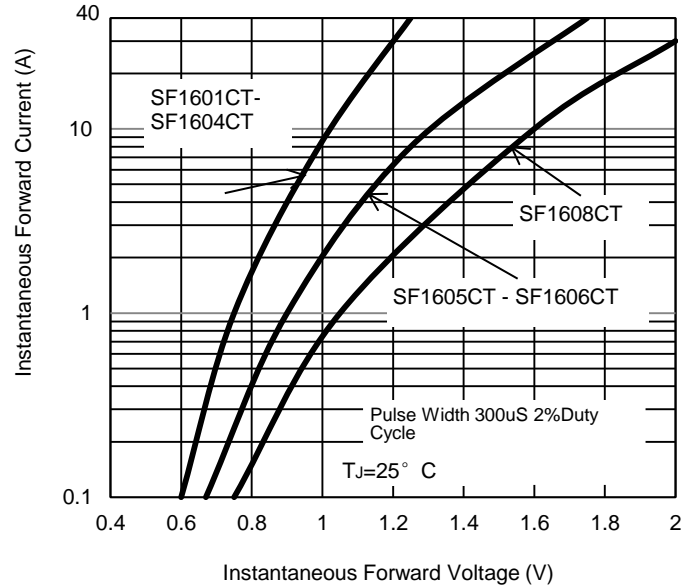
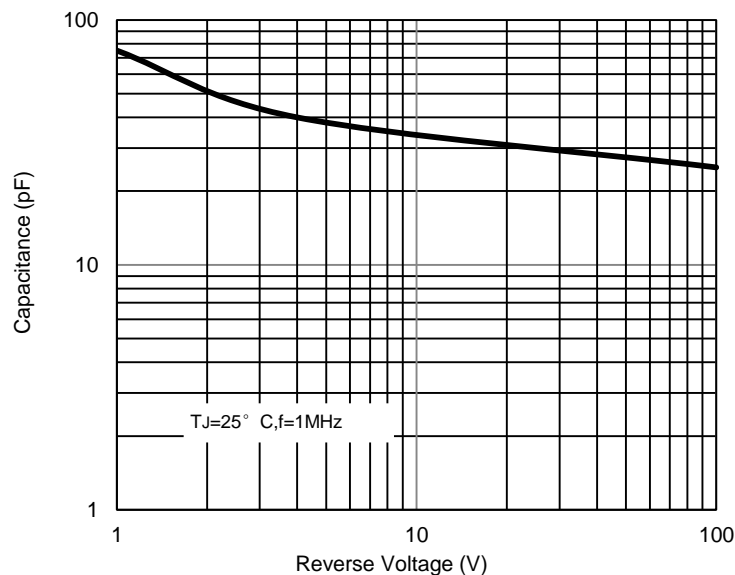


Fig. 5 - Typical Junction Capacitance



The curve above is for reference only.

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