

Super Fast Recovery Rectifiers 超快恢复整流管

Reverse Voltage - 50 to 600 Volts
反向电压 50-600V
Forward Current - 16.0 Amperes
正向电流 16.0A

Features 特征

- Fast switching for high efficiency 高效率，开关速度快
- Low cost 低成本
- Low reverse leakage current 反向漏电流小
- High current capability 通流能力强
- Low forward voltage drop 正向压降低
- Meet UL flammability classification 94V-0
符合UL 94V-0阻燃等级

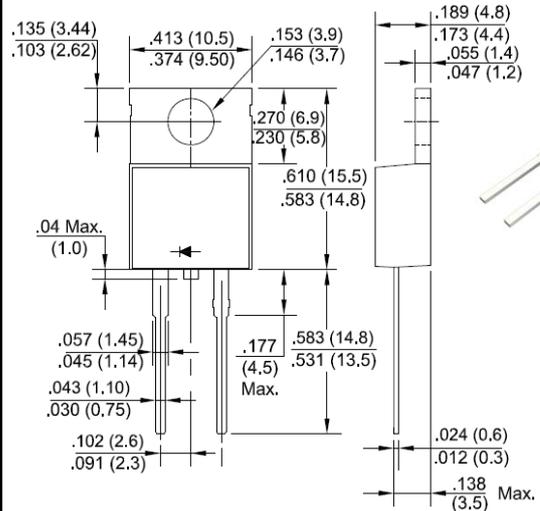
Mechanical Data 外观信息

- Case: TO-220AC Molded plastic 封装: TO-220AC塑封
- Polarity: Polarity: As marked on the body 极性: 标识在本体上
- Mounting position: Any 安装位置: 任意位置

Applications 应用

- For use in SMPS, high frequency inverters, PWM and polarity protection applications
应用于开关电源，高频变换器，脉宽调制器和极性保护

TO-220AC



RoHS
COMPLIANT



Package Outline Dimensions in Inches (Millimeters)

封装外观尺寸单位英寸(毫米)

Maximum Ratings and Electrical Characteristics 最大额定值及电气特性

Rating at 25°C ambient temperature unless otherwise specified. 环境温度25°C，除非特别说明。

Single phase, half wave, 60Hz, resistive or inductive load. 单相半波，60Hz，阻性或感性负载。

For capacitive load, derate current by 20%. 对于电容性负载，降低20%的额定电流。

Characteristics 特性	Symbol 符号	SF 1601	SF 1602	SF 1603	SF 1604	SF 1605	SF 1606	SF 1608	Unit 单位
Maximum Repetitive Peak Reverse Voltage 最大重复峰值反向电压	V _{RRM}	50	100	150	200	300	400	600	V
Maximum RMS Voltage 最大有效反向电压	V _{RMS}	35	70	105	140	210	280	420	V
Maximum DC Blocking Voltage 最大直流阻断电压	V _{DC}	50	100	150	200	300	400	600	V
Maximum Average Forward Rectified Current @ T _A =75°C 最大正向平均整流电流	I _(AV)	16.0							A
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method) 8.3ms单一正弦半波叠加在额定负载上的浪涌能力(JEDEC方法)	I _{FSM}	200							A
Peak Forward Voltage at 16.0A DC (Note1) 在16.0A 电流下的正向峰值电压(备注1)	V _F	1.0			1.3		1.7		V
Maximum DC Reverse Current @ T _J =25°C at Rated DC Blocking Voltage @ T _J =100°C 在额定直流电压下的最大反向直流电流	I _R	10			150				μA
Maximum Reverse Recovery Time (Note 2) 最大反向恢复时间(备注2)	T _{RR}	35							nS
Typical Junction Capacitance (Note3) 典型结电容值(备注3)	C _J	80							pF
Typical Thermal Resistance Junction to Ambient 结到环境的典型热阻值	R _{θJA}	2.5							°C/W
Operating Junction Temperature Range 结温工作范围	T _J , T _{STG}	-55 to + 150							°C

Notes: 1. 300uS pulse width, 2% duty cycle. 300uS脉宽，2%占空比。

2. Measured with I_F=0.5A, I_R=1A, I_{RR}=0.25A. 测试条件为I_F=0.5A, I_R=1A, I_{RR}=0.25A.

3. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC. 在1MHz, 4.0V条件下测试。

4. The typical data above is for reference only(典型值仅供参考).

SF16*-U-00-00

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Fig. 1 - Forward Current Derating Curve

图1 正向电流降额曲线

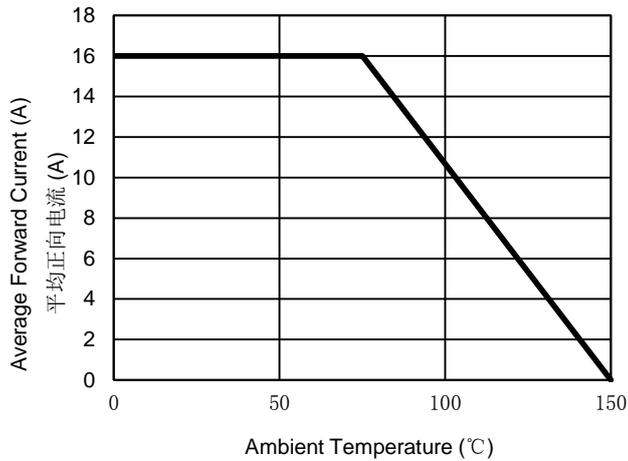


Fig. 2 - Maximum Non-Repetitive Surge Current

图2 最大不重复正向浪涌曲线

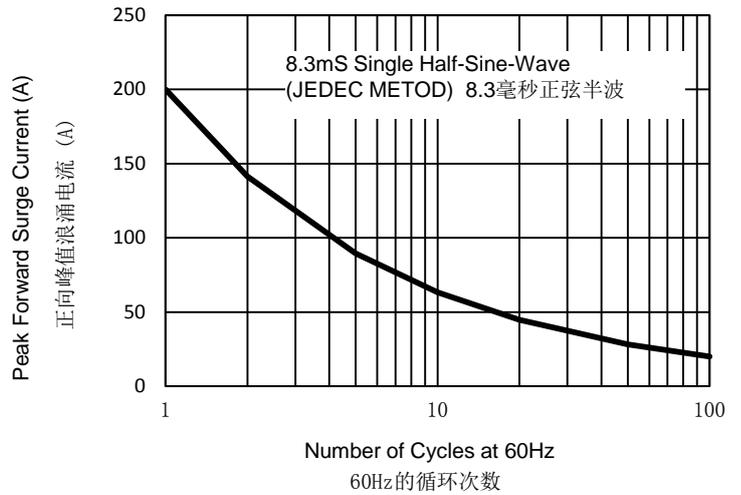


Fig. 3 - Typical Reverse Characteristics

图3 典型的反向特性

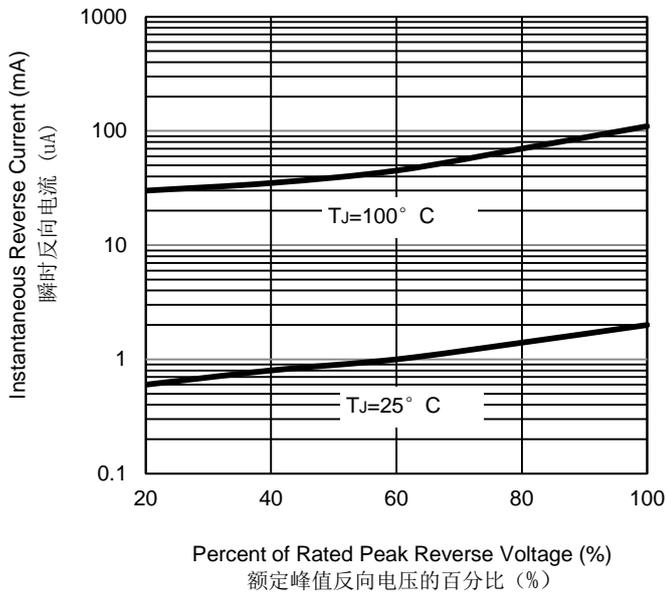


Fig. 4 - Typical Forward Characteristics

图4 典型的正向特性

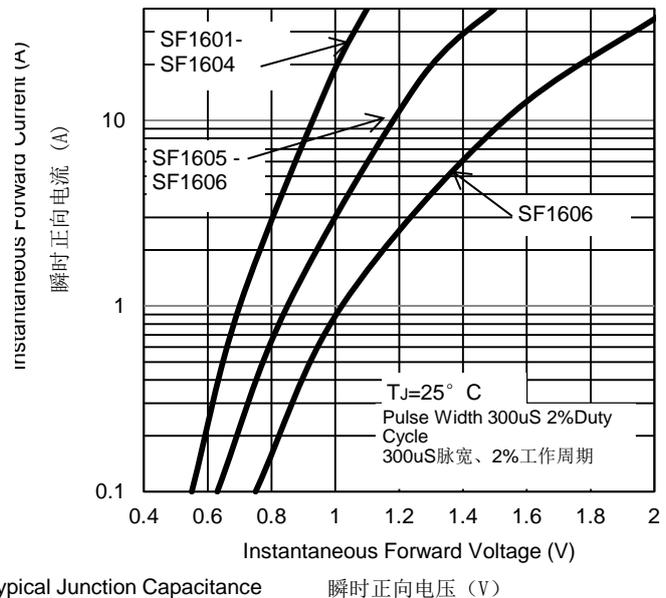
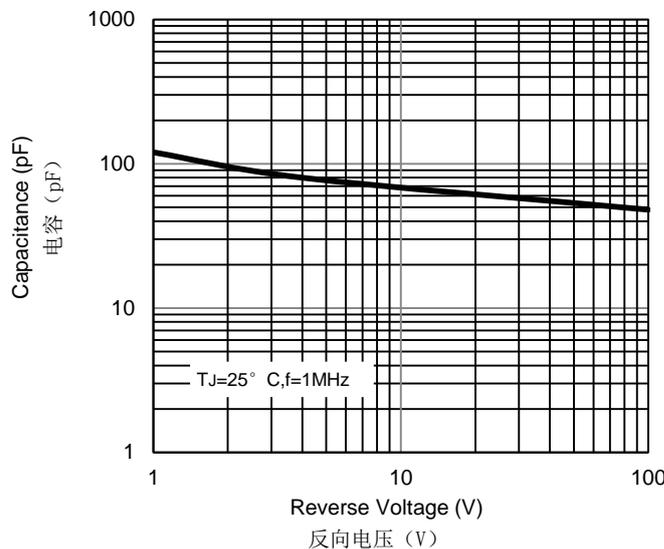


Fig. 5 - Typical Junction Capacitance

图5 典型的结电容



The curve above is for reference only. 曲线图仅供参考。



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