



High Efficiency Glass Passivated Rectifiers 高效玻璃钝化整流管

Reverse Voltage - 50 to 600 Volts
反向电压 50-600V
Forward Current - 30.0 Ampere
正向电流 30.0 A

Features 特征

- Low power 低功率
- Low thermal resistance 低热阻
- Low forward voltage drop 正向压降低
- High current capability 通电能力强
- High fast switching capability 超快切换时间
- High surge capacity 浪涌能力强
- High reliability 可靠性高

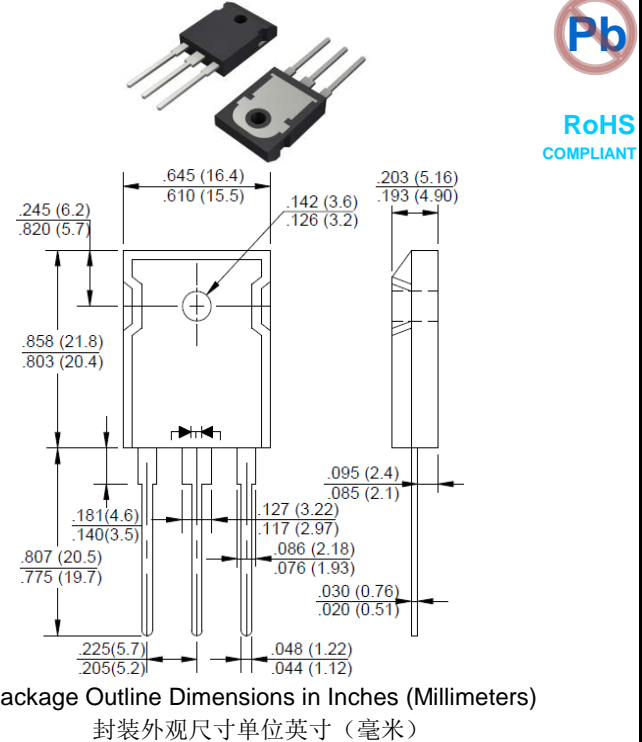
Mechanical Data 外观信息

- Case: JEDEC TO-3P Molded plastic
本体: JEDEC TO-3P塑封
- Polarity: Color band denotes cathode 极性: 阴极色环标识
- Mounting position: Any 安装位置: 不限

Applications 应用

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

TO-3P



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	HER 3001PT	HER 3002PT	HER 3003PT	HER 3004PT	HER 3005PT	HER 3006PT	Unit 单位
Maximum Repetitive Peak Reverse Voltage 最大重复峰值电压	VRRM	50	100	200	300	400	600	V
Maximum RMS Voltage 最大有效反向电压	VRMS	35	70	140	210	280	420	V
Maximum DC Blocking Voltage 最大直流阻断电压	VDC	50	100	200	300	400	600	V
Maximum Average Forward Rectified Current @TA=75 °C 最大正向平均整流电流	Io	30						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)	IFSM	300						A
Typical Thermal Resistance Junction to Ambient 结到环境的典型热阻值	RθJA	1.0						°C/W
Typical Junction Capacitance (Note1) 典型的结电容 (备注1)	CJ	125						pF
Peak Forward Voltage at 15.0 A DC 在15.0 A下的正向峰值电压	VF	1.0			1.3		1.7	V
Maximum DC Reverse Current at Rated @TJ=25°C DC Blocking Voltage @TJ=100°C 在额定直流电压下的最大反向直流电流	IR	10						μA
Maximum Reverse Recovery Time (Note 2) 最大反向恢复时间 (备注2)	TRR	70						nS
Operating and Storage Temperature Range 工作和储存温度范围	TJ,TSTG	-55 to + 150						°C

Notes: 1.Measured at 1.0 MHz and applied reverse voltage of 4.0V DC. 在 1.0MHz 下和反向电压为 4.0V DC 下测试。
2.Measured with IF=0.5A,IR=1A,IRR=0.25A. 备注: 在IF=0.5A,IR=1A,IRR=0.25A下量测。
3.The typical data above is for reference only. (典型值仅供参考)。



Fig. 1 - Forward Current Derating Curve

图1 正向电流降额曲线

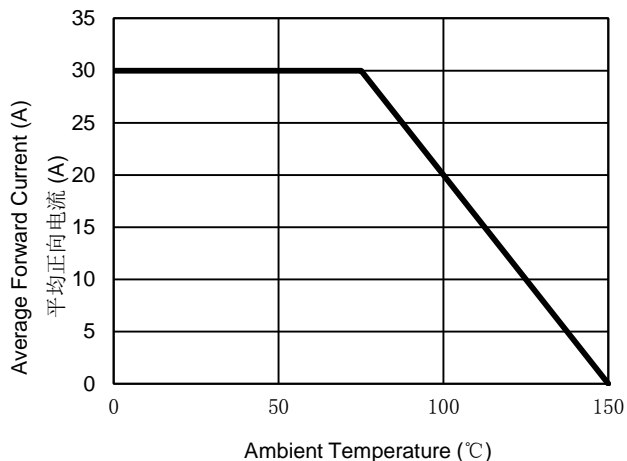


Fig. 2 - Maximum Non-Repetitive Surge Current

图2 最大不重复正向浪涌曲线

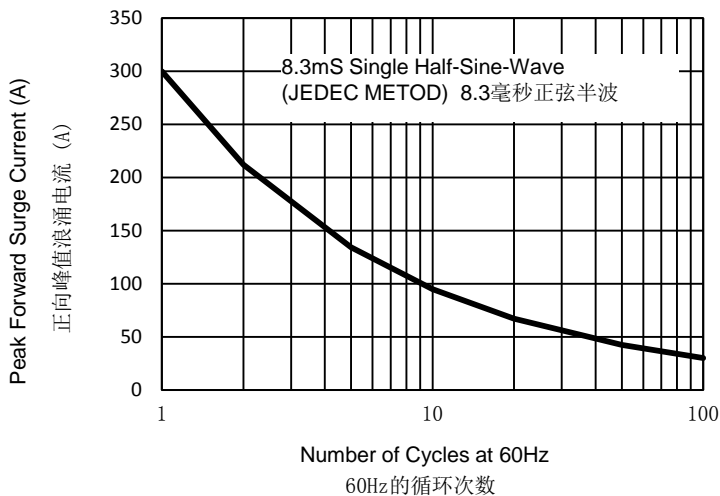


Fig. 3 - Typical Reverse Characteristics

图3 典型的反向特性

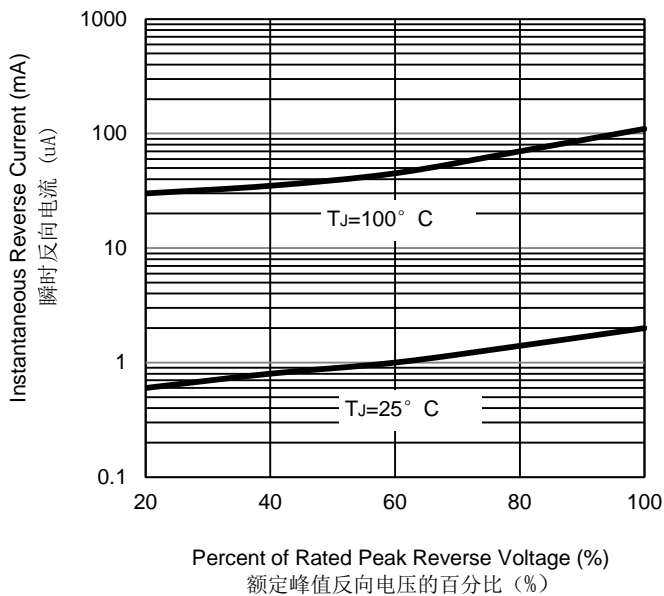


Fig. 4 - Typical Forward Characteristics

图4 典型的正向特性

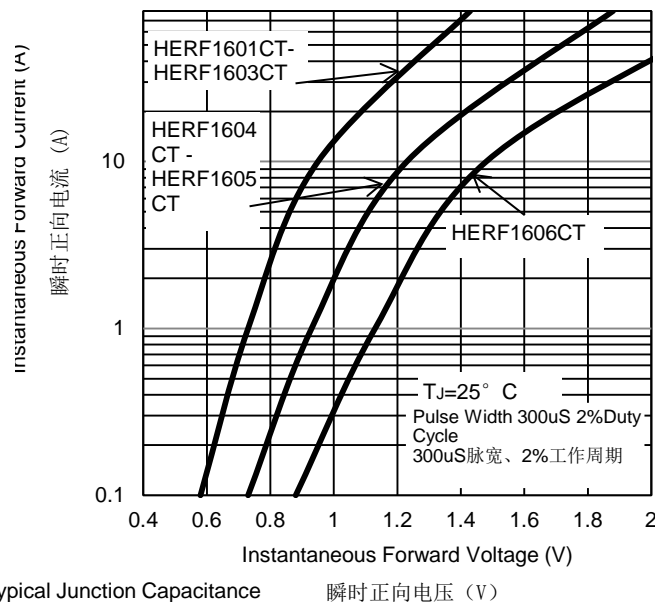
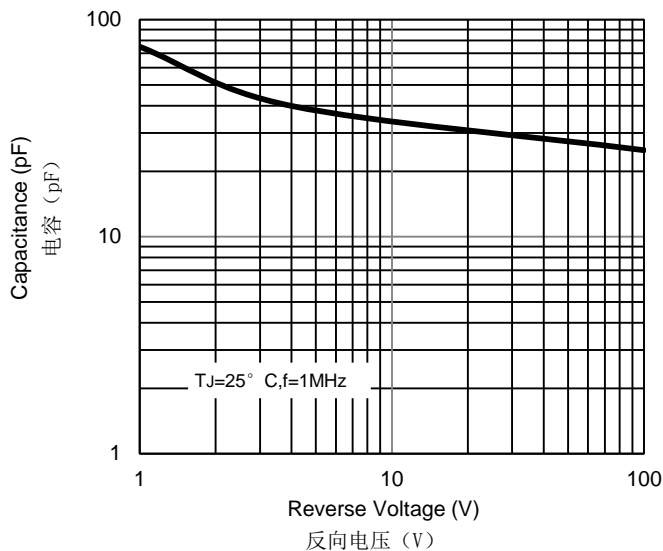


Fig. 5 - Typical Junction Capacitance

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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