

## Fast Recovery Rectifiers 快恢复整流器

**Reverse Voltage - 400 to 1000Volts**  
**反向电压 400-1000V**  
**Forward Current - 1.0 Amperes**  
**正向电流 1.0A**

### Features 特征

- Fast switching for high efficiency 快速、高效
- Low reverse leakage current 反向漏电流小
- High current capability 通电能力强
- Low forward voltage drop 正向压降低
- Low cost 低成本
- Meet UL flammability classification 94V-0  
符合UL 94V-0阻燃等级

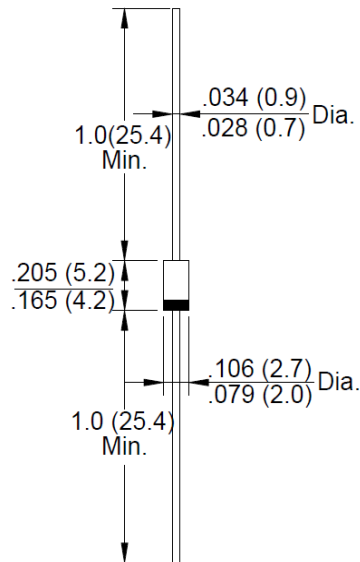
### Mechanical Data 外观信息

- Case: JEDEC DO-41 molded plastic 封装: DO-41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  
应用于开关电源, 高频变换器, 脉宽调制器和极性保护

### DO-41



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	BA157	BA158	BA159	Unit 单位
Maximum Repetitive Peak Reverse Voltage 最大重复峰值反向电压	VRRM	400	600	1000	V
Maximum RMS Voltage 最大有效反向电压	VRMS	280	420	700	V
Maximum DC Blocking Voltage 最大直流阻断电压	VDC	400	600	1000	V
Maximum Average Forward Rectified Current @TA=75 °C 最大正向平均整流电流	IAV	1.0			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)	IFSM	30			A
Peak Forward Voltage at 1.0A DC (Note1) 在1.0 A 电流下的正向峰值电压 (备注1)	VF	1.3			V
Maximum DC Reverse Current @Tj=25°C at Rated DC Blocking Voltage @Tj=100°C 在额定直流电压下的最大反向直流电流	IR	5.0 100			uA
Maximum Reverse Recovery Time (Note 2) 最大反向恢复时间 (备注2)	Trr	150	250	500	nS
Typical Junction Capacitance (Note3) 典型结电容值 (备注3)	CJ	25	15		pF
Typical Thermal Resistance Junction to Ambient 结到环境的典型热阻值	RθJA	25			°C/W
Operating Junction Temperature Range 结温工作范围	TJ	-55 to +150			°C
Storage Temperature Range 储存温度范围	TSTG	-55 to +150			°C

- Notes: 1. 300uS pulse width, 2% duty cycle. 300uS脉宽, 2%占空比。  
2. Measured with IF=0.5A, IR=1A, IRR=0.25A. 测试条件为IF=0.5A, IR=1A, IRR=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。

Fig. 1 - Forward Current Derating Curve  
图1 正向电流降额曲线

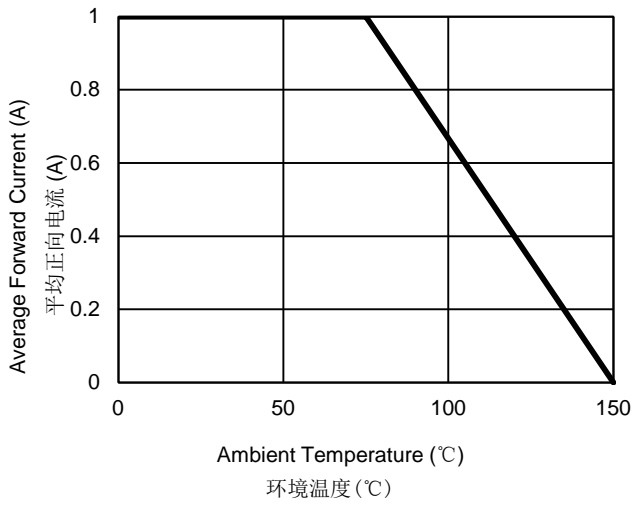


Fig. 2 - Maximum Non-Repetitive Surge Current  
图2 最大不重复正向浪涌曲线

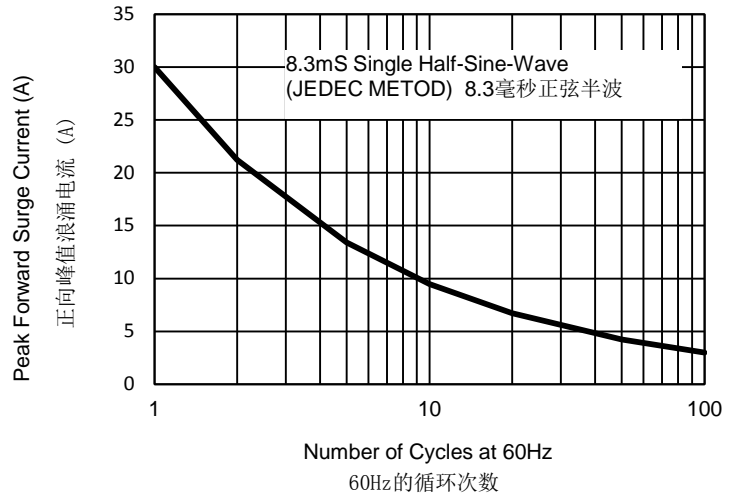


Fig. 3 - Typical Junction Capacitance  
图3 典型的结电容

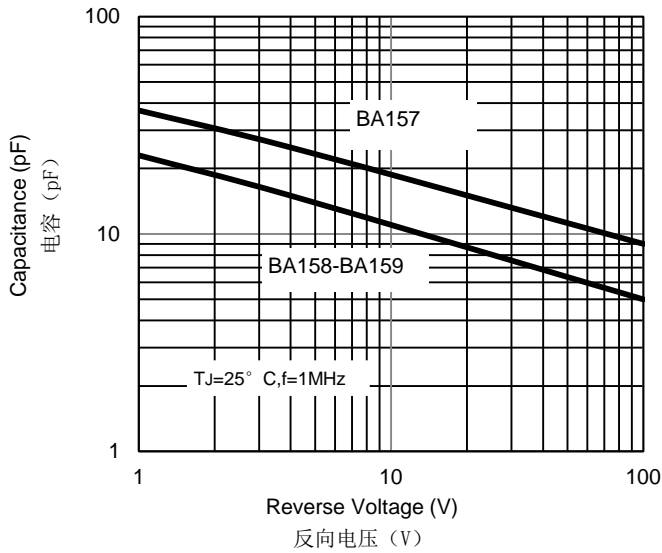
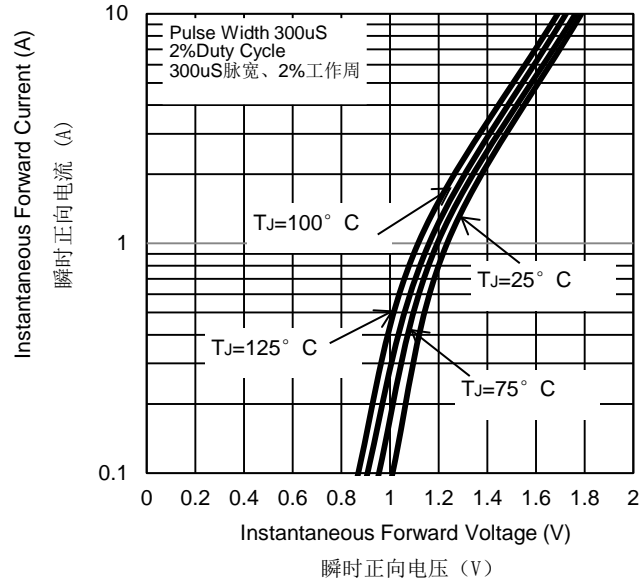


Fig. 4 - Typical Forward Characteristics  
图4 典型的正向特性





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