

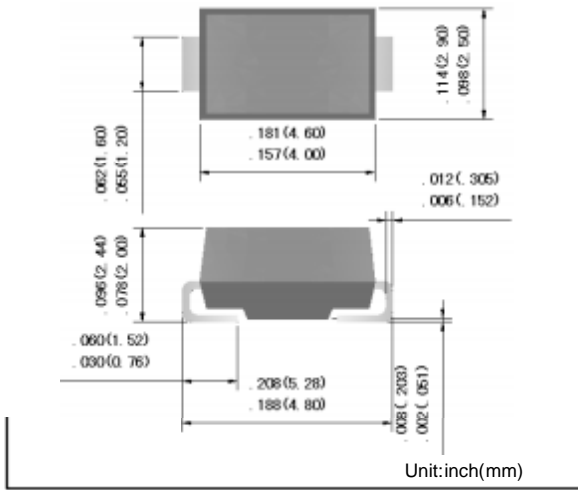
ES2A-ES2J

表面安装超快速整流二极管
反向电压 50~600 V
正向电流 2.0A

SurfaceMountSuperFastRecoveryRectifiers

ReverseVoltage 50~600 V
ForwardCurrent 2.0 A

SMA



特征Features

- 反向漏电流低 Low reverse leakage
- 正向浪涌承受能力强 High forward surge capability
- 高信赖性 High reliability
- 高温焊接保证
High temperature soldering guaranteed: 260°C/10秒
260°C/10seconds
- 引线 and 管体皆符合 RoHS 标准
Lead and body according with RoHS standard

机械数据MechanicalData

- 封装外形: SMA 塑封 Case: SMA Molded plastic
- 环氧树脂: UL 易燃等级: 94V-0
Epoxy: UL 94V-0 rate flameretardant
- 引脚: 镀锡, 无铅 Lead: Pure tin plated, lead free

最大值和特性 $T_A = 25^\circ\text{C}$ 除非另有规定。

Maximum Ratings & Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

参数 Parameter	符号 Symbols	ES2A	ES2B	ES2C	ES2D	ES2E	ES2G	ES2J	单位 Unit
最大可重复峰值反向电压 Maximum repetitive peak reverse voltage	V_{RRM}	50	100	150	200	300	400	600	V
最大均方根电压 Maximum RMS voltage	V_{RMS}	35	70	105	140	210	280	420	V
最大直流阻断电压 Maximum DC blocking voltage	V_{DC}	50	100	150	200	300	400	600	V
最大正向平均整流电流 Maximum average forward rectified current	$I_{F(AV)}$	2.0							A
正向不重复浪涌电流 8.3ms 单一正弦半波 Non-repetitive peak forward surge current 8.3ms single half sine-wave	I_{FSM}	50							A
最大正向电压 @ $I_F = 2.0\text{A}$ Maximum forward voltage	V_F	0.95				1.25		1.70	V
最大反向电流 @ V_{DC} $T_A = 25^\circ\text{C}$ Maximum reverse current	I_R	5							μA
最大反向恢复时间 $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $IRR = 0.25\text{A}$ MAX. reverse recovery time	T_{rr}	35							ns
典型热阻 Typical thermal resistance (Note 1)	$R_{\theta JA}$	105							$^\circ\text{C/W}$
工作结温和存储温度 Operating junction and storage temperature range	T_j, T_{STG}	-55---+150							$^\circ\text{C}$

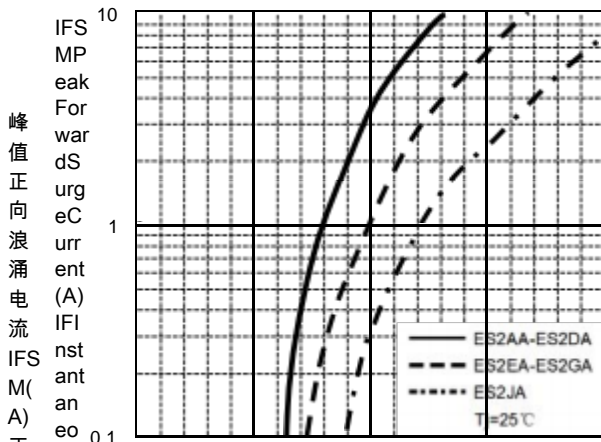
备注 Note:

- 安装在 PCB 板上, 从 PN 结到周围环境的热阻。
- Thermal resistance from junction to ambient, PCB mounted.

特性曲线 Characteristic Curves

正向特性曲线 (典型值)

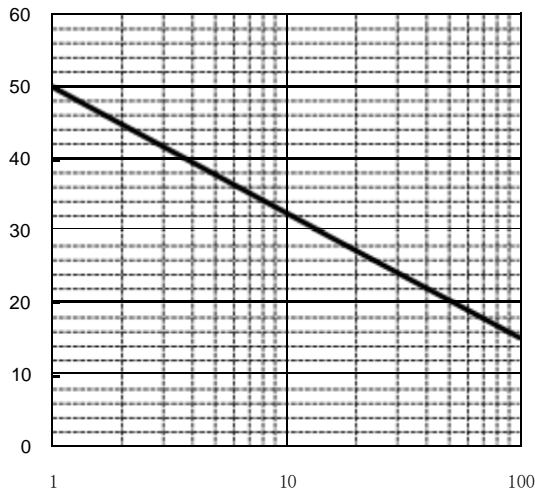
TYPICAL FORWARD CHARACTERISTIC



0.2 0.6 1.1 4.1 8 正向电压 V_F (V)
 V_F Instantaneous Forward Voltage (V)

浪涌特性曲线 (最大值)

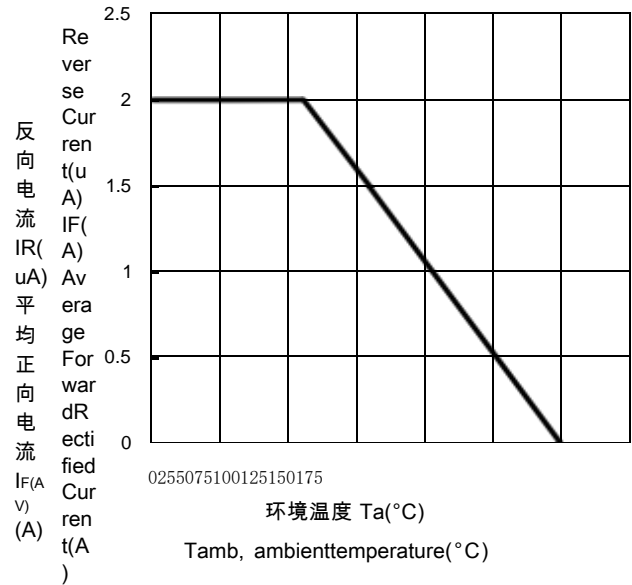
MAXIMUM NONREPETITIVE PEAK FORWARD SURGE CURRENT



通过电流的周期
 Number of Cycles at 60Hz.

正向电流降额曲线

FORWARD CURRENT DERATING CURVE



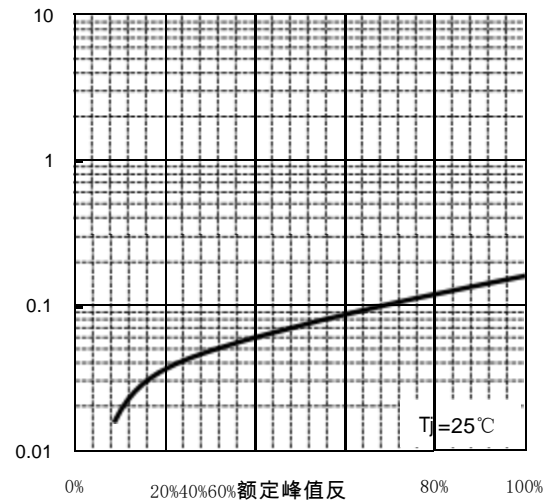
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环境温度 T_a (°C)

T_{amb} , ambient temperature (°C)

反向特性曲线

Typical Reverse Characteristics



Percent Of Rated Peak Reverse voltage %