SIYU®

ER300 ..... ER306

塑封超快速整流二极管

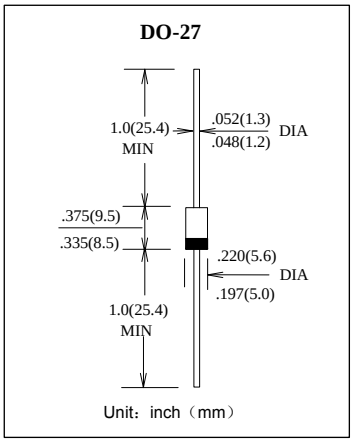
反向电压 50 --- 600 V

正向电流 3.0 A

Plastic Ultra-Fast Recover Rectifier

Reverse Voltage 50 to 600V

Forward Current 3.0A



特征 Features

- 反向漏电流低 Low reverse leakage
- 正向浪涌承受能力较强 High forward surge capability
- 高温焊接保证 High temperature soldering guaranteed:
  260℃/10 秒, 0.375" (9.5mm)引线长度。
  260℃/10 seconds, 0.375" (9.5mm) lead length,
- 引线可承受5 磅 (2.3kg) 拉力。 5 lbs. (2.3kg) tension
- 引线和管体皆符合RoHS标准 。
  Lead and body according with RoHS standard

机械数据 Mechanical Data

- 端子: 镀锡轴向引线 Terminals: Plated axial leads
- 极性: 色环端为负极 Polarity: Color band denotes cathode end
- 安装位置: 任意 Mounting Position: Any

极限值和温度特性 TA = 25℃ 除非另有规定。

Maximum Ratings & Thermal Characteristics Ratings at 25℃ ambient temperature unless otherwise specified.

	符号 Symbols	ER300	ER301	ER301A	ER302	ER303	ER304	ER306	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	$I_{F(AV)}$	3.0							A
峰值正向浪涌电流 8.3ms单一正弦半波 Peak forward surge current 8.3 ms single half sine-wave	I_{FSM}	125							A
典型热阻 Typical thermal resistance	$R_{\theta JA}$	15							℃/W
工作结温和存储温度 Operating junction and storage temperature range	Tj, TSTG	-55 --- +150							℃

电特性 TA = 25℃ 除非另有规定。

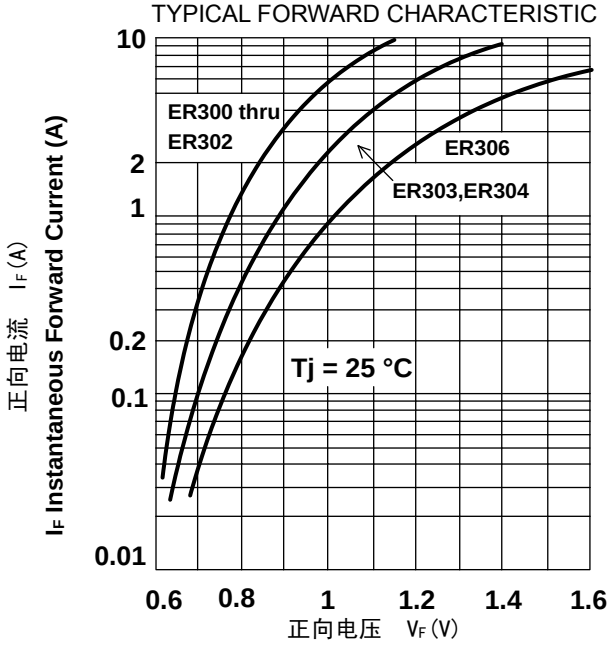
Electrical Characteristics Ratings at 25℃ ambient temperature unless otherwise specified.

		符号 Symbols	ER300	ER301	ER301A	ER302	ER303	ER304	ER306	单位 Unit
最大正向电压 Maximum forward voltage	I_F = 3.0A	V_F	0.95				1.3		1.7	V
最大反向电流 Maximum reverse current	TA= 25℃ TA=100℃	I_R	5.0 100							μA
最大反向恢复时间 MAX. Reverse Recovery Time	I_F=0.5A I_R=1.0A I_{RR}=0.25A	trr	35							nS
典型结电容 Type junction capacitance	V_R = 4.0V, f = 1MHz	C_j	35							pF

特性曲线 Characteristic Curves

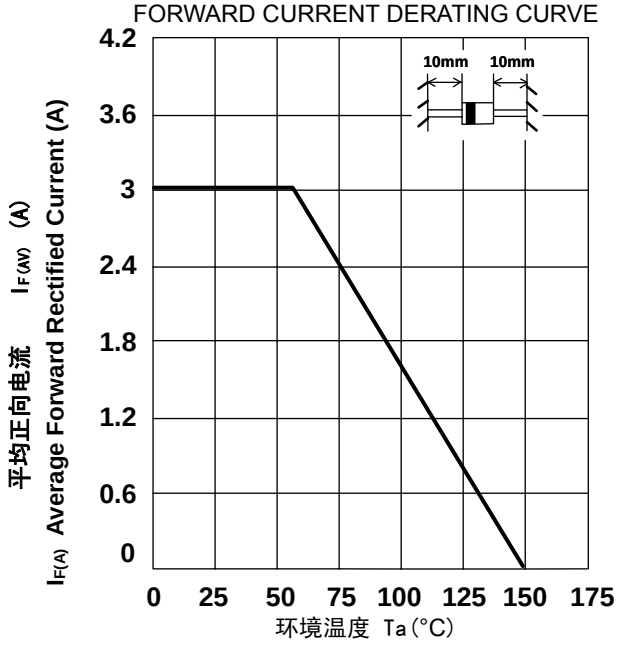
正向特性曲线（典型值）

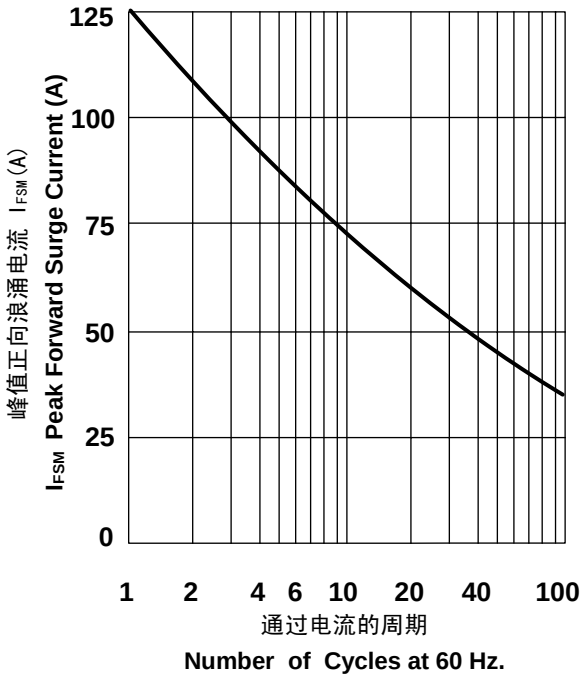
TYPICAL FORWARD CHARACTERISTIC



正向电流降额曲线

FORWARD CURRENT DERATING CURVE



浪涌特性曲线（最大值）

MAXIMUM NON REPETITIVE
PEAK FORWARD SURGE CURRENT