

描述 / Descriptions

TO-277 塑封封装 超快恢复二极管。

TO-277 Plastic package ultrafast recovery diode .

特征 / Features

采用硅外延工艺生产的超快恢复二极管，具有较低的反向漏电流和高可靠性。

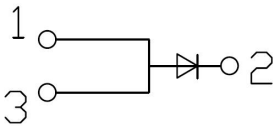
Silicon epitaxial process to produce ultrafast recovery diode with low reverse leakage current and high reliability.

用途 / Applications

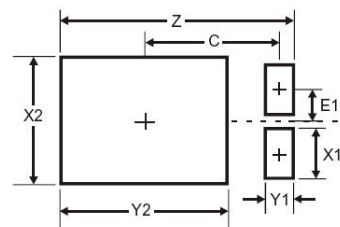
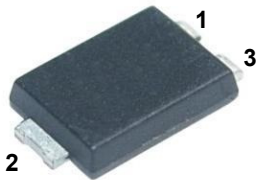
用于高频、高压、大电流整流二极管，续流二极管，PFC 电路。

For high frequency,high voltage,high current rectifier diode, freewheeling diode, PFC circuit.

内部等效电路 / Equivalent Circuit



引脚排列 / Pinning



Dimensions	Value (in mm)
Z	6.6
X1	1.4
X2	3.6
Y1	0.8
Y2	4.7
C	3.87
E1	0.9

PIN1 : Anode PIN 2 : Cathode PIN 3 : Anode

Suggested Pad layout

放大及印章代码 / h_{FE} Classifications & Marking

见印章说明。See Marking Instructions.

极限参数 / Absolute Maximum Ratings(Ta=25°C)

参数 Parameter	符号 Symbol	数值 Rating	单位 Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage Peak Reverse Voltage	V_{RRM} V_{RWM} V_{RM}	600	V
RMS Reverse voltage	$V_{R(RMS)}$	420	V
Average Rectified Forward Current	$I_{F(AV)}$	4	A
Non-Repetitive Peak Forward Surge Current	I_{FSM}	110	A
Junction Temperature Range	T_J	-55~150	°C
Storage Temperature Range	T_{stg}	-55~150	°C
Typical Thermal Resistance	$R_{\theta JA}$ (Note 1)	76	°C/W

注/Notes:

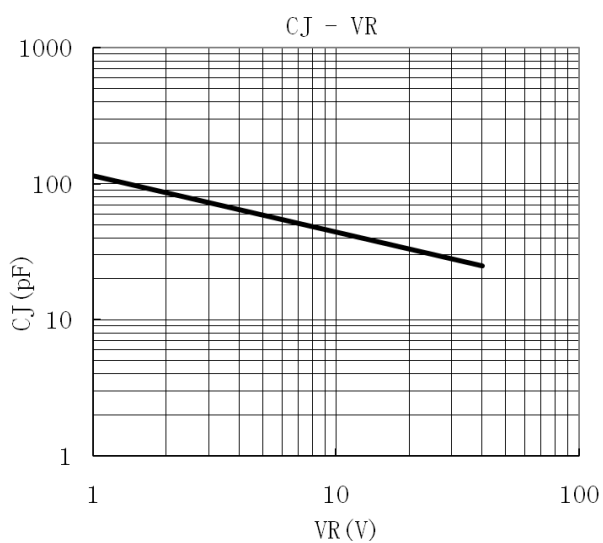
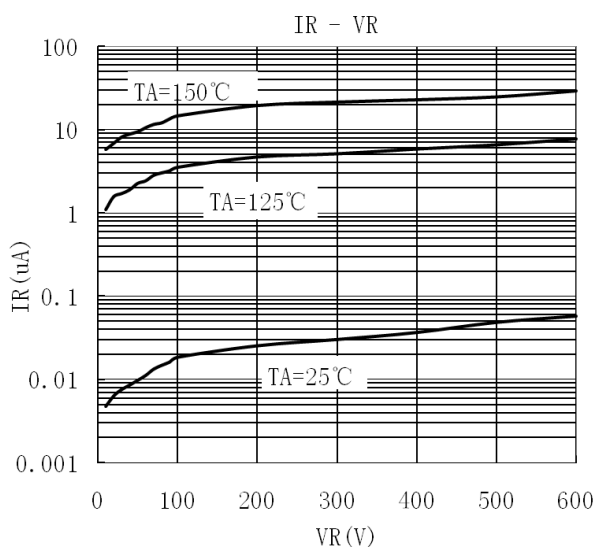
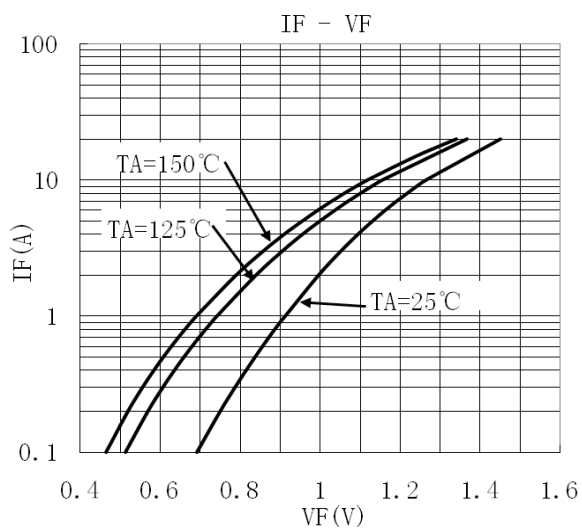
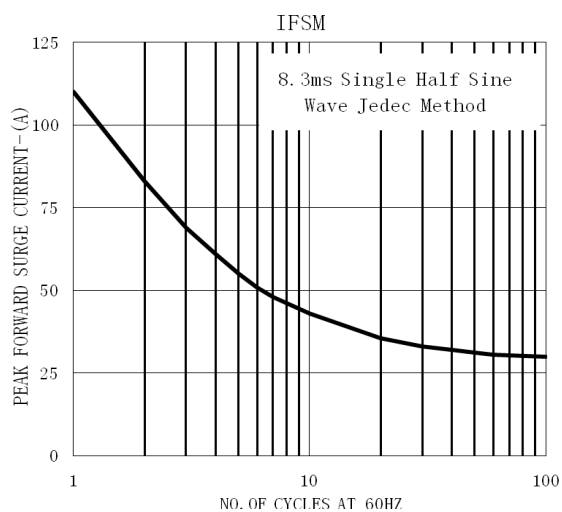
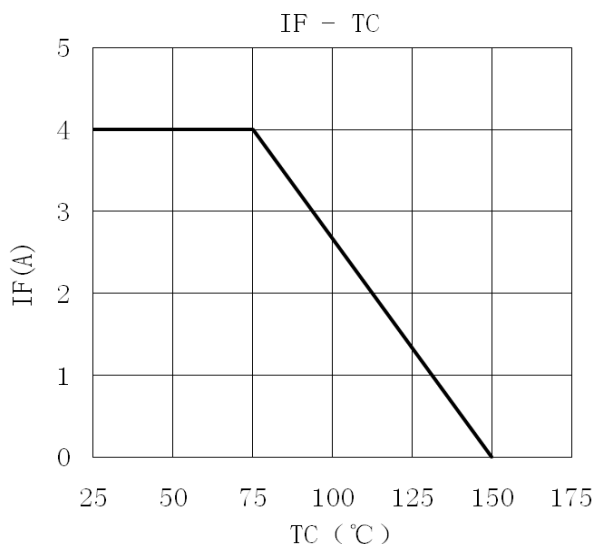
1. FR-4 PCB, 2盎司铜, 最低建议焊盘布局。

FR-4 PCB, 2oz. Copper, minimum recommended pad layout per.

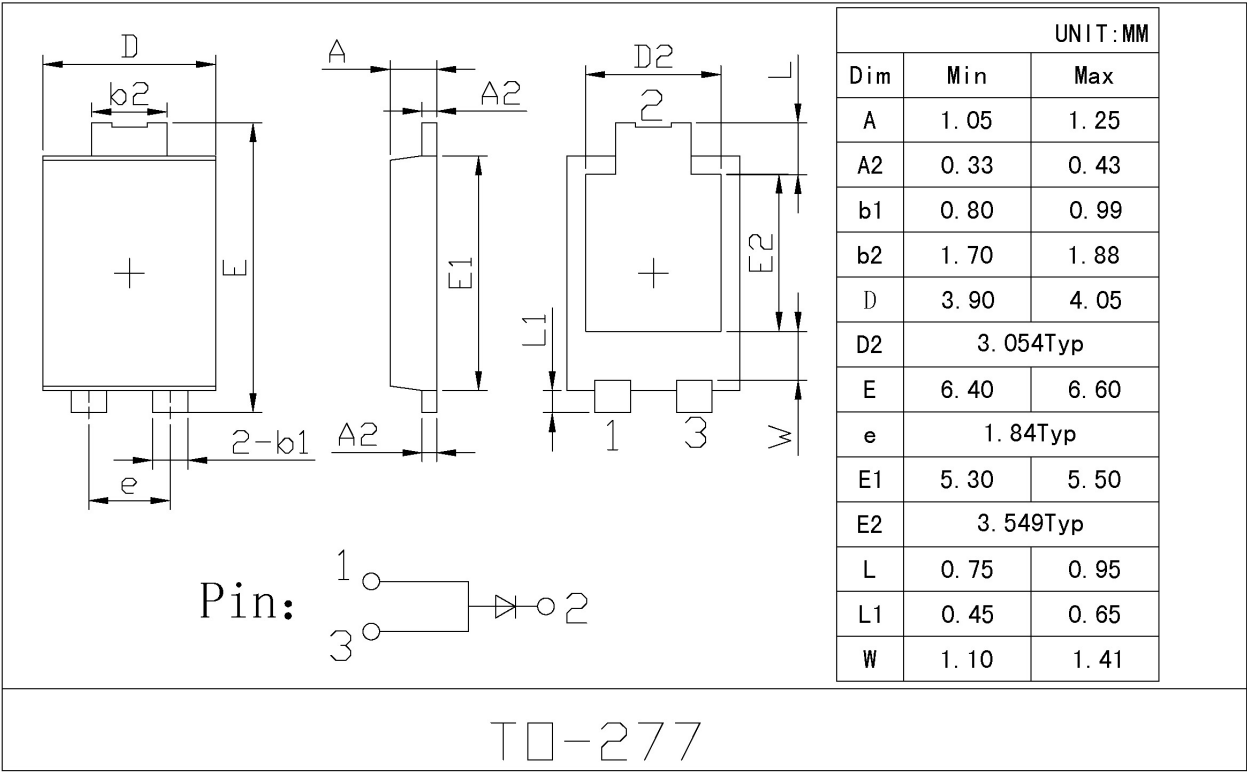
电性能参数 / Electrical Characteristics(Ta=25°C)

参数 Parameter	符号 Symbol	测试条件 Test Conditions	数值 Rating	单位 Unit
Reverse Voltage	V_R	$I_R=1mA$	600	V
Forward voltage	V_F	$I_F=1A \quad T_a=25^\circ C$	1.1	
		$I_F=1A \quad T_a=125^\circ C$	0.85	
		$I_F=4A \quad T_a=25^\circ C$	1.28	
Instantaneous Reverse Current	I_R	$T_a=25^\circ C$	10	μA
		$T_a=150^\circ C$	250	
Reverse Recovery Time	t_{rr}	$I_F=0.5A \quad I_R=1A$ $I_{rr}=0.25A$	50	ns

电参数曲线图 / Electrical Characteristic Curve



外形尺寸图 / Package Dimensions



印章说明 / Marking Instructions



说明：

MUR460：为产品型号

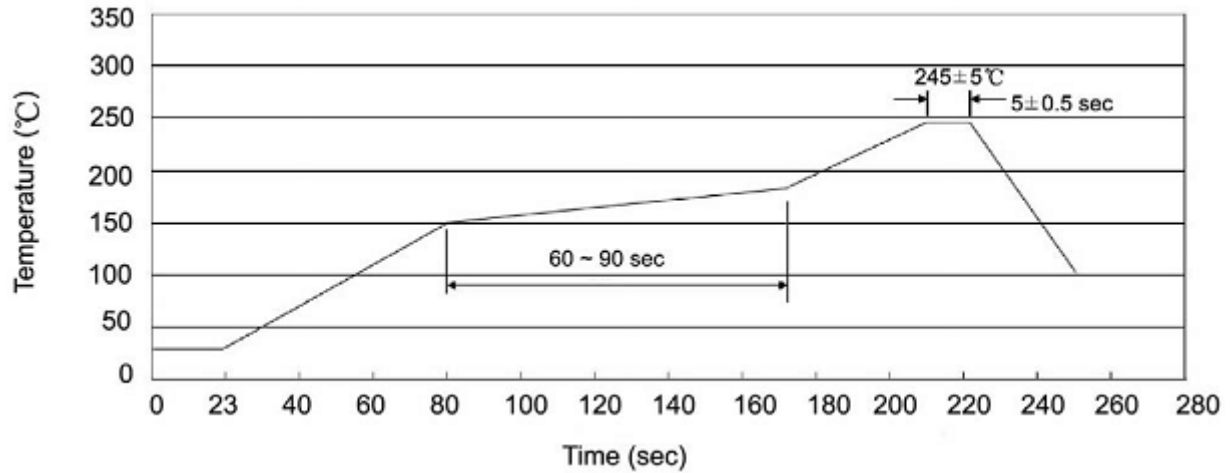
****：为生产批号代码，随生产批号变化。

Note:

MUR460：Product Type.

****: Lot No. Code, code change with Lot No.

回流焊温度曲线图(无铅) / Temperature Profile for IR Reflow Soldering(Pb-Free)



说明：

- 1、预热温度 25 ~ 150°C，时间 60 ~ 90sec;
- 2、峰值温度 245±5°C，时间持续为 5±0.5sec;
- 3、焊接制程冷却速度为 2 ~ 10°C/sec.

Note:

- 1.Preheating:25~150°C, Time:60~90sec.
- 2.Peak Temp.:245±5°C, Duration:5±0.5sec.
3. Cooling Speed: 2~10°C/sec.

耐焊接热试验条件 / Resistance to Soldering Heat Test Conditions

温度：260±5°C

时间：10±1 sec.

Temp.:260±5°C

Time:10±1 sec

包装规格 / Packaging SPEC.

卷盘包装 / REEL

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	Units/Reel 只/卷盘	Reels/Inner Box 卷盘/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Reel	Inner Box 盒	Outer Box 箱
TO-277	5,000	3	15,000	5	75,000	13" ×12	360×360×50	385×257×392

使用说明 / Notices