

BRLV10T100EQ

Rev.A Apr.-2022

描述 / Descriptions

TO-277 塑封封装肖特基二极管。

TO-277 Plastic package Schottky diode .

特征 / Features

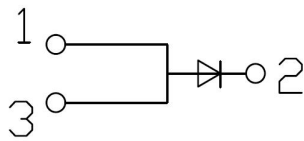
高正向浪涌能力，超低正向压降，优异的高温稳定性，符合 AEC-Q101 标准高可靠性要求，无卤产品。
High Forward Surge Capability, Ultra Low Forward Voltage Drop, Excellent High Temperature Stability, Qualified to AEC-Q101 Standards for High Reliability, HF Product.

用途 / Applications

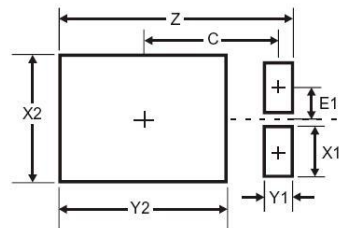
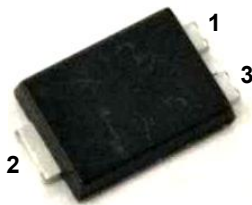
用于高频、低压、大电流整流二极管，续流二极管，保护二极管，满足汽车应用的严格要求。

For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications, Meet the stringent requirements of automotive applications.

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

印章代码 / 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 DC Blocking Voltage	V_{RM} V_{RSM} V_{DC}	100	V
RMS Reverse Voltage	V_{RMS}	70	V
Average forward rectified current	$I_{F(AV)}$	1×10	A
Non Repetitive Peak Surge Current	I_{FSM}	200	A
Thermal Resistance Junction to Case	$R_{\theta Jc}$	1.4	°C/W
Junction and Storage Temperature Range	T_j T_{stg}	-55~+150	°C

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

参数 Parameter	符号 Symbol	测试条件 Test Conditions	最小值 Min	典型值 Typ	最大值 Max	单位 Unit
Reverse Voltage	$V_{(BR)R}$	$I_R=1mA(Ta=25^\circ C)$	100			V
Forward Voltage	V_F	$I_F=2A(Ta=25^\circ C)$		0.41	0.45	V
		$I_F=10A(Ta=25^\circ C)$		0.58	0.65	V
		$I_F=2A(Ta=125^\circ C)$		0.31	0.40	V
		$I_F=10A(Ta=125^\circ C)$		0.55	0.65	V
Instantaneous Reverse Current	I_R (Note 1)	$V_R=100V(Ta=25^\circ C)$			150	μA
		$V_R=100V(Ta=125^\circ C)$			25	mA

注/Notes :

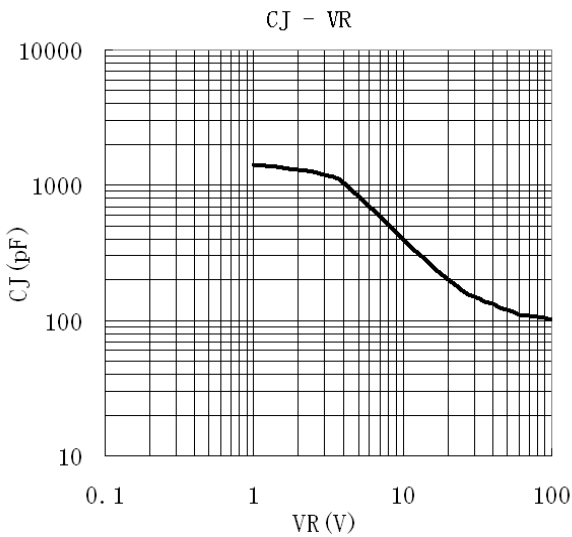
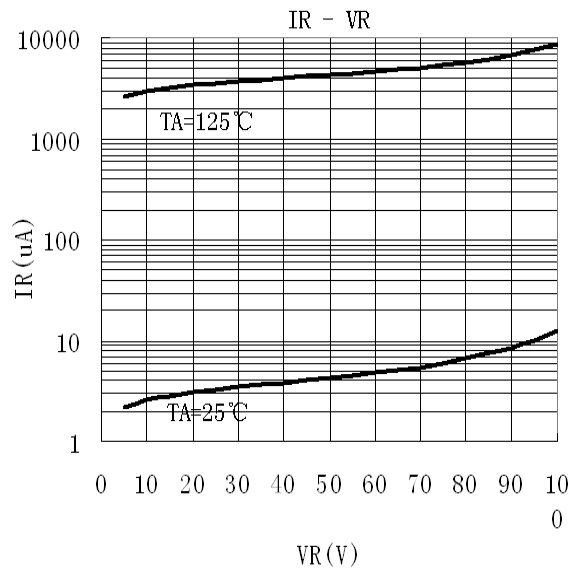
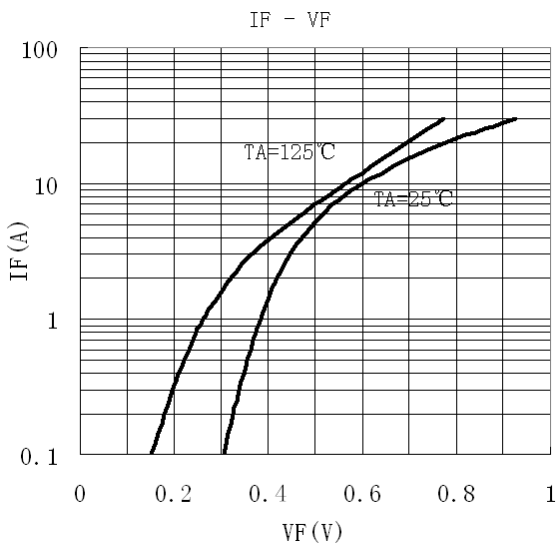
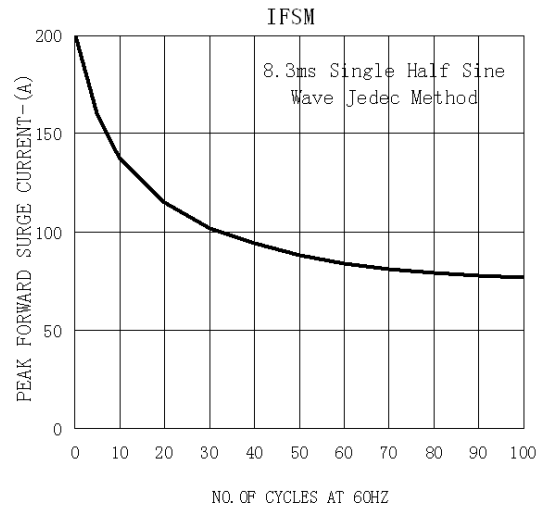
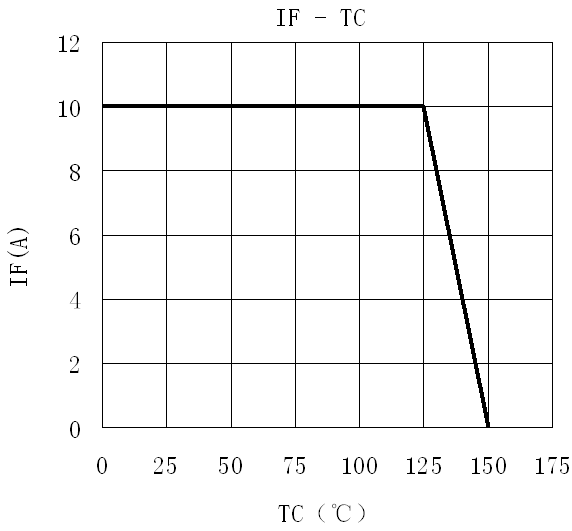
1. 使用极短的测试时间，以尽量减少自热效应。

Short duration pulse test used to minimize self-heating effect.

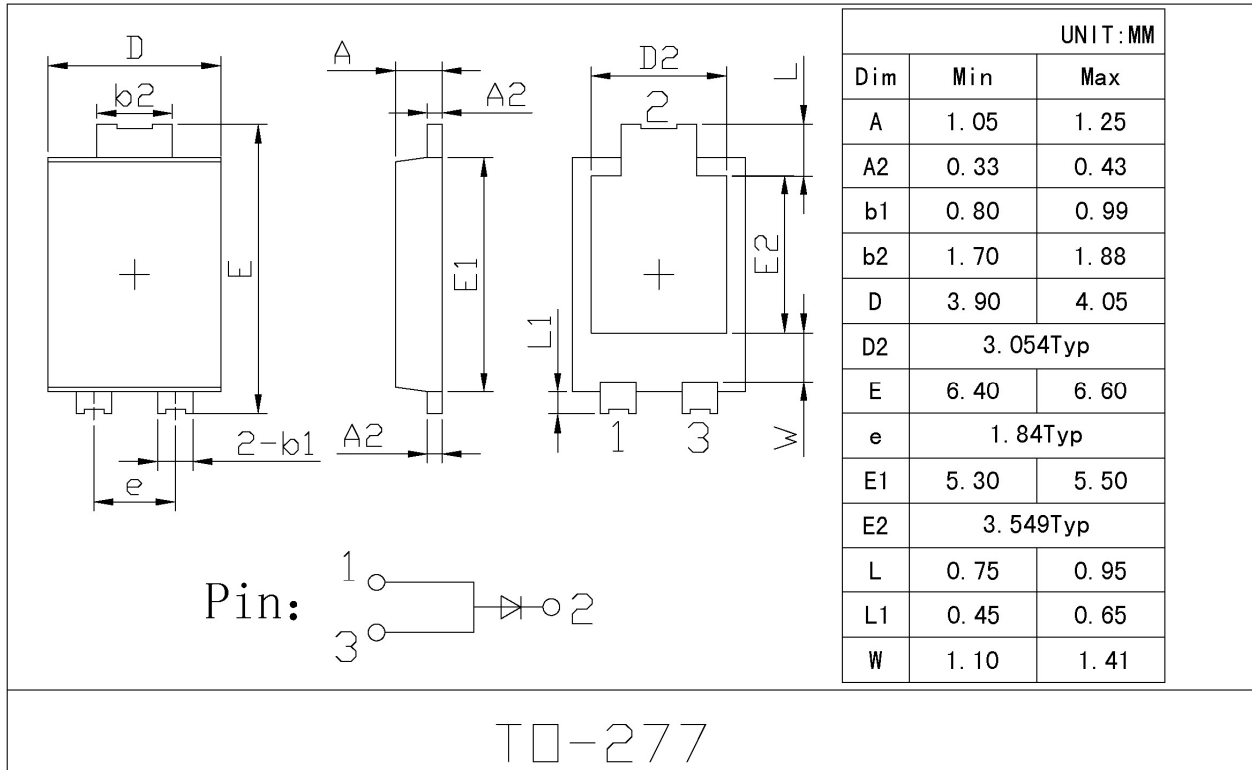
2. 除非特别注明，数值为一个芯片的参数。

Unless otherwise noted, values for the parameters of a single chip

电参数曲线图 / Electrical Characteristic Curve



外形尺寸图 / Package Dimensions



印章说明 / Marking Instructions



说明：

10TA0： 为型号代码

Q： 为汽车无卤产品标识

****： 为生产批号代码，随生产批号变化

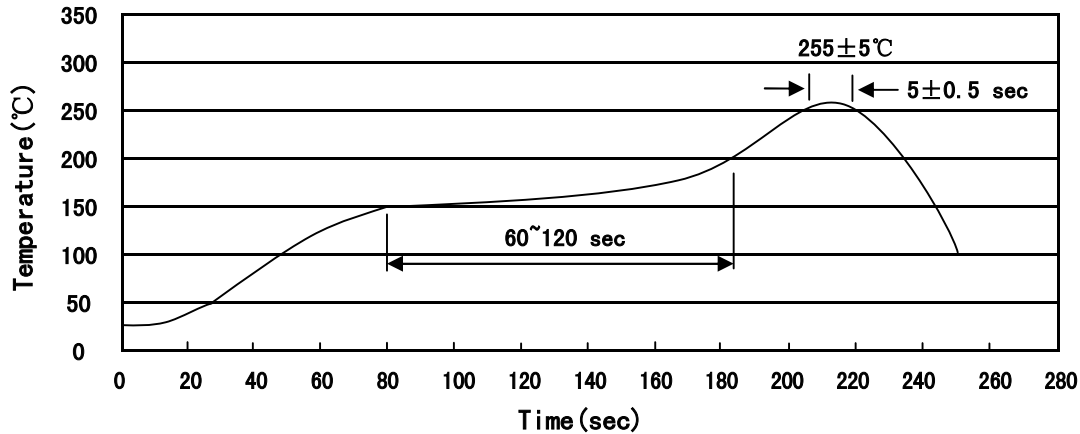
Note:

10TA0： Product Type

Q: Automobile halogen-free product Code

****: 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 150~200°C，时间 60~120sec;
- 2、峰值温度 255±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:150~200°C, Time:60~120sec.
- 2.Peak Temp.:255±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	6	90,000	13" ×12	360×360×50	380×335×366

使用说明 / Notices