

# LV10S45D

Rev.F Mar.-2016

## 描述 / Descriptions

TO-252 塑封封装 肖特基二极管。

Schottky Barrier Diode in a TO-252 Plastic Package.

## 特征 / Features

高正向浪涌能力，超低正向压降  $V_F(\text{typ})=0.2\text{V}$ ，优异的高温稳定性。

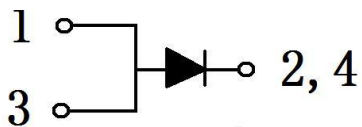
High Forward Surge Capability, Ultra Low Forward Voltage Drop  $V_F(\text{typ})=0.2\text{V}$ , Excellent High Temperature Stability.

## 用途 / Applications

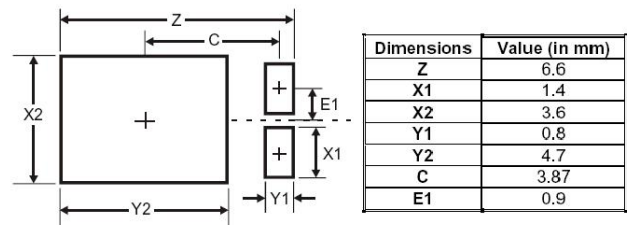
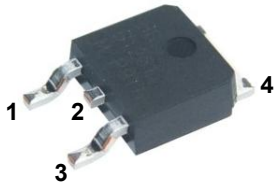
用于高频、低压、大电流整流二极管，续流二极管，保护二极管。

For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications.

## 内部等效电路 / Equivalent Circuit



## 引脚排列 / Pinning



PIN1 : Anode    PIN 2,4 : Cathode    PIN 3 : Anode

Suggested Pad layout

## 放大及印章代码 / h<sub>FE</sub> 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	$V_{RRM}$ $V_{RWM}$ $V_{RM}$	45	V
RMS Reverse voltage	$V_{R(RMS)}$	31.5	V
Average Rectified Output Current	$I_O$	10	A
Non-Repetitive Peak Forward Surge Current	$I_{FSM}$	250	A
Junction Temperature Range	$T_{J\ MAX}$	150	°C
Storage Temperature Range	$T_{stg}$	-55~150	°C
Typical Thermal Resistance	$R_{\theta JA}$ (Note 1)	73	°C/W

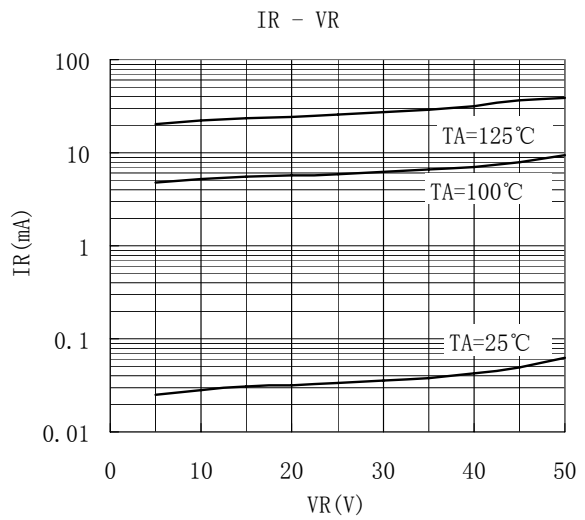
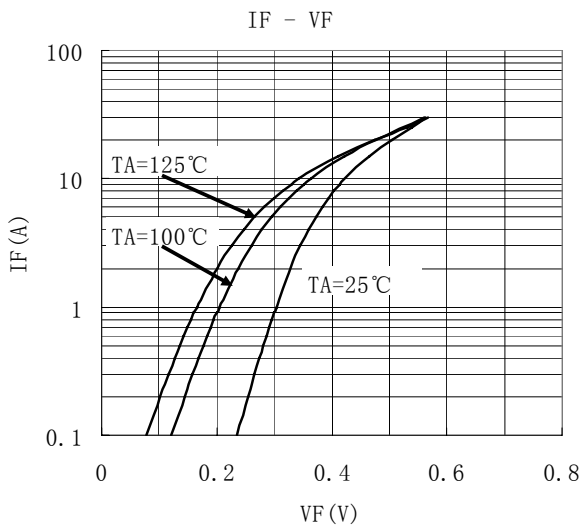
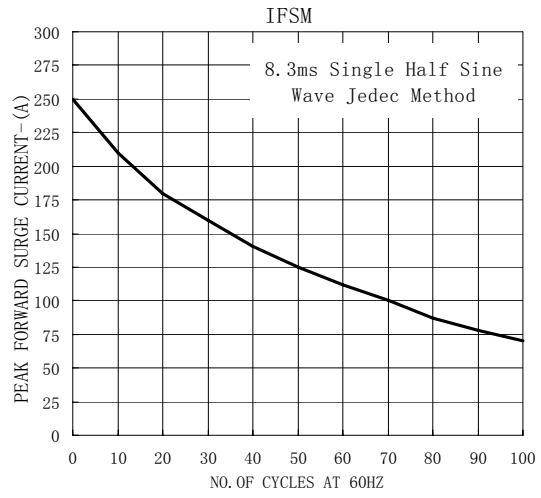
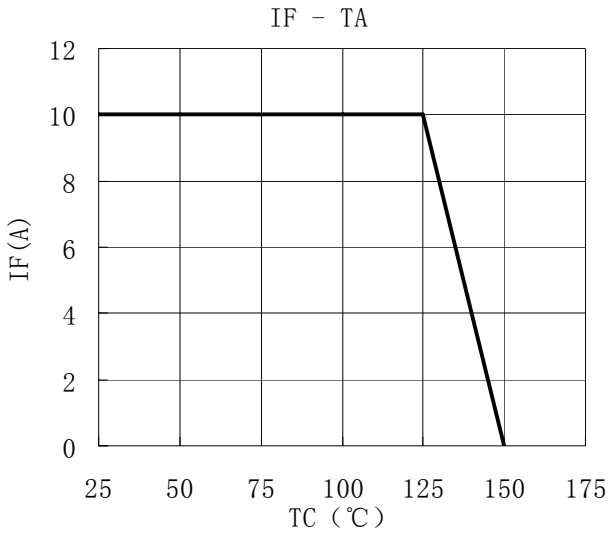
**电性能参数 / Electrical Characteristics(Ta=25°C)**

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	$V_R$	$I_R=0.5mA$	45			V
Forward voltage	$V_F$	$I_F=2A$ $T_J=25^\circ C$		0.33	0.38	V
		$I_F=2A$ $T_J=125^\circ C$		0.20		V
		$I_F=10A$ $T_J=25^\circ C$		0.42	0.46	V
		$I_F=10A$ $T_J=125^\circ C$		0.35		V
Instantaneous Reverse Current	$I_R$ (Note 2)	$V_R=45V$ $T_J=25^\circ C$		0.06	0.12	mA
		$V_R=45V$ $T_J=100^\circ C$			12	mA
		$V_R=45V$ $T_J=125^\circ C$			50	mA

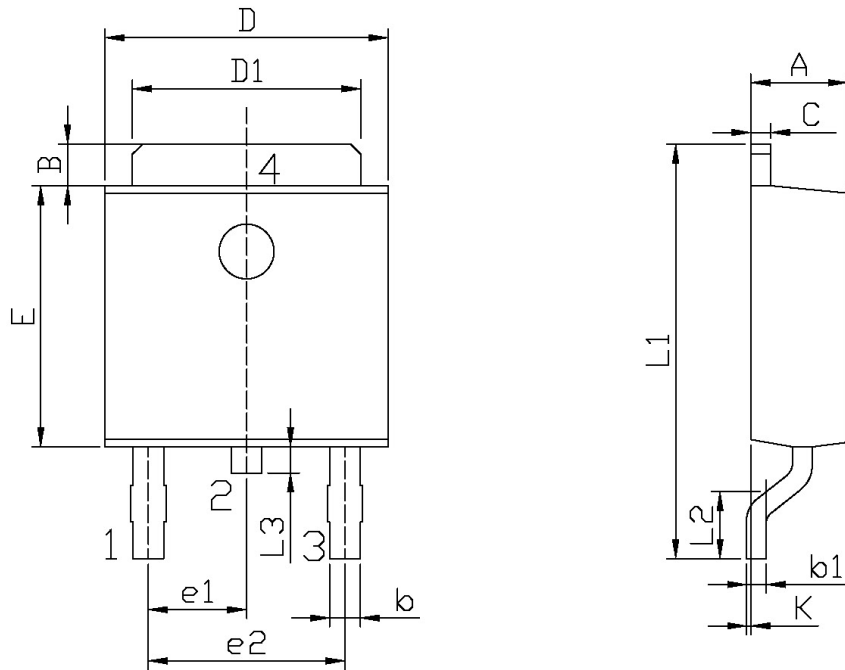
注/Notes:

- 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.
- 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.

**电参数曲线图 / Electrical Characteristic Curve**



外形尺寸图 / Package Dimensions

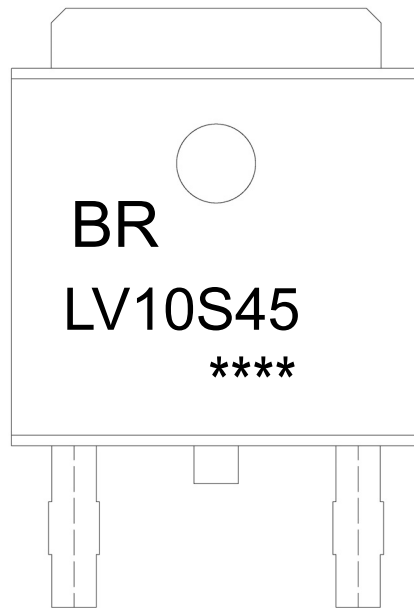


单位: mm

Symbol	Dimensions In Millimeters		Symbol	Dimensions In Millimeters	
	Min	Max		Min	Max
A	2.20	2.40	E	5.95	6.25
B	0.95	1.25	e1	2.24	2.34
b	0.50	0.70	e2	4.43	4.73
b1	0.45	0.55	L1	9.45	9.95
C	0.45	0.55	L2	1.25	1.75
D	6.45	6.75	L3	0.60	0.90
D1	5.10	5.50	K	0.00	0.10

TO-252

印章说明 / Marking Instructions



说明：

BR： 为公司代码

LV10S45： 为型号代码

\*\*\*\*： 为生产批号代码，随生产批号变化

Note:

BR: Company Code

LV10S45: Product Type 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 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 <sup>3</sup> )		
	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-252	2,500	2	5,000	5	25,000	13" ×16	360×360×50	385×257×392

套管包装 / TUBE

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm <sup>3</sup> )		
	Units/Tube 只/套管	Tubes/Inner Box 套管/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Tube 套管	Inner Box 盒	Outer Box 箱
TO-251/252	75	48	3,600	5	18,000	526×20.5×5.25	555×164×50	575×290×180

**使用说明 / Notices**