描述 / Descriptions

TO-263 塑封封装 肖特基二极管。
Schottky Barrier Diode in a TO-263 Plastic Package.

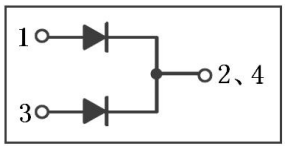
特征 / Features

低正向压降，低功耗损失，效率高。
Low forward voltage drop,low power losses,High efficiency operation.

用途 / Applications

用于高频率逆变器，开关电源，续流二极管，OR-ing 二极管，DC-DC 转换器和电池反向保护。
For use in high frequency inverters, switching power supplies, freewheeling diodes,OR-ing diode, dc-to-dc converters and reverse battery protection.

内部等效电路 / Equivalent Circuit



引脚排列 / Pinning



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

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℃)

参数 Parameter	符号 Symbol	数值 Rating			单位 Unit
		LV4045BCT	LV4050BCT	LV4060BCT	
Peak Repetitive Reverse Voltage	V_{RRM}	45	50	60	V
RMS Reverse Voltage	V_{RMS}	32	35	42	V
Average Rectified Output Current	I_O	40			A
Non-Repetitive Peak Forward Surge Current	I_{FSM}	300			A
Average forward current	$I_{F(AV)}$	2×20			A
Non-Repetitive Peak Forward Surge Current	I_{FSM}	300			A
Thermal Resistance Junction to Ambient case	$R_{\theta Jc}$	1.8			℃/W
Operating and Storage Temperature Range	T_j T_{stg}	-55～+150			℃

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

参数 Parameter	符号 Symbol	测试条件 Test Conditions	数值 Rating			单位 Unit
			LV4045BCT	LV4050BCT	LV4060BCT	
Reverse Breakdown Voltage	V_{BR}	I_R=1mA(Ta=25℃)	45	50	60	V
Forward Voltage	V_F	I_F =10A(Ta=25℃)	470		500	mV
		I_F =20A(Ta=25℃)	550		600	mV
		I_F =30A(Ta=25℃)	700			mV
		I_F =20A(Ta=125℃)	600			mV
Instantaneous Reverse current (Note1)	I_R (Note 1)	V_R=V_{BR}(Ta=25℃)	500			μA
		V_R=V_{BR}(Ta=125℃)	100			mA
Total Capacitance	C_T		1000			pF
Voltage Rate of Change	dV/dt		10000			V/us

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

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

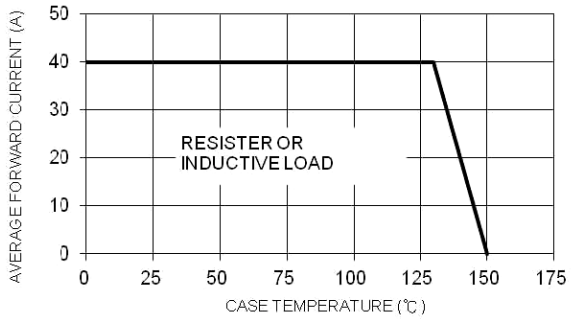


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

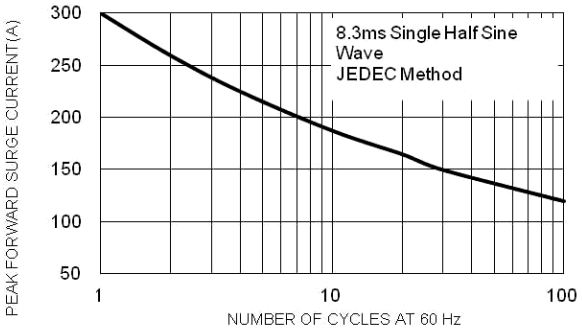


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

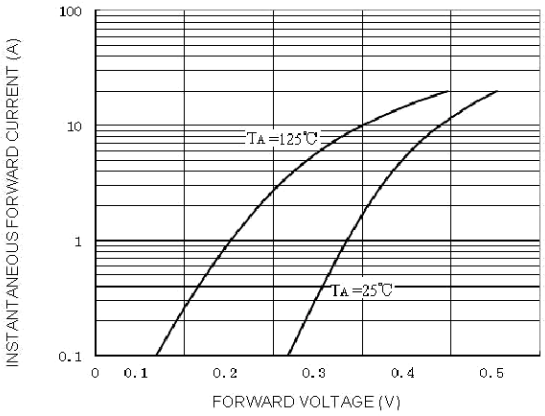
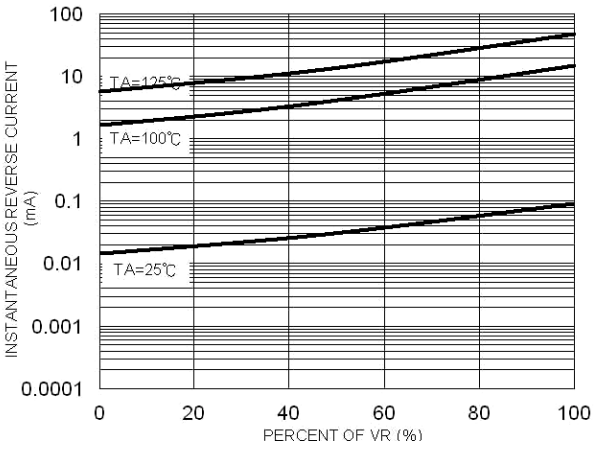
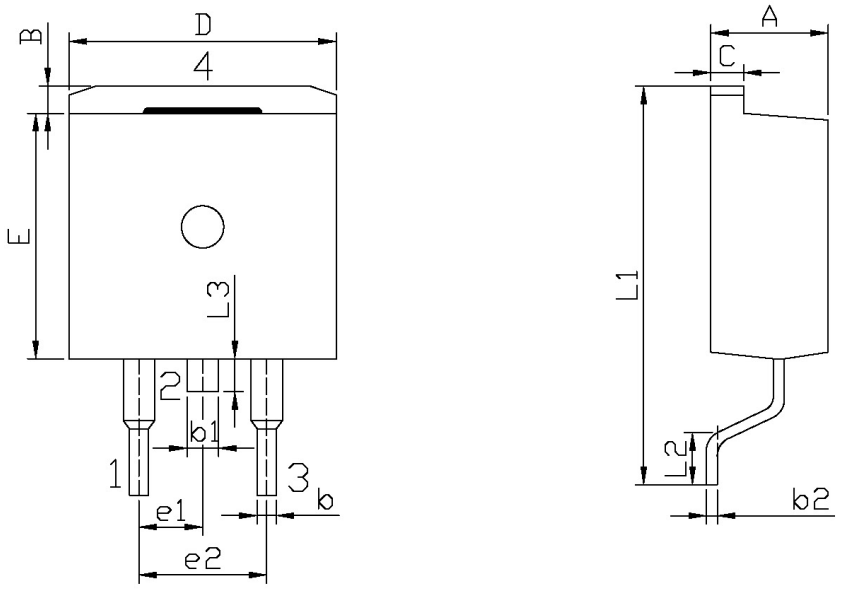


FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG



外形尺寸图 / Package Dimensions

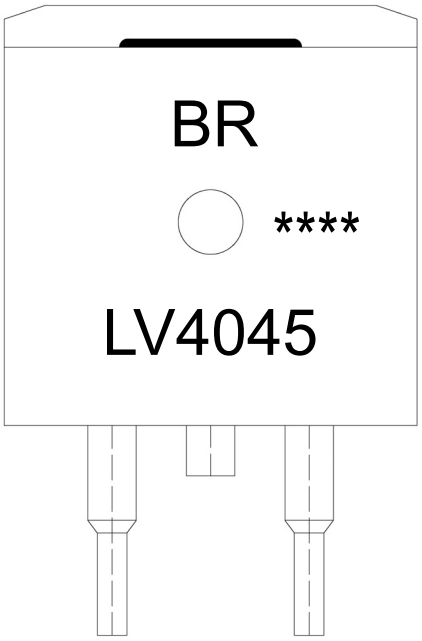


单位：mm

Symbol	Dimensions In Millimeters		Symbol	Dimensions In Millimeters	
	Min	Max		Min	Max
A	4.30	4.70	E	9.00	9.40
B	1.00	1.40	e1	2.34	2.74
b	0.70	0.90	e2	4.88	5.28
b1	1.15	1.35	L1	15.00	16.00
b2	0.40	0.60	L2	2.24	2.84
C	1.20	1.40	L3	1.20	1.60
D	9.80	10.20			

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印章说明 / Marking Instructions



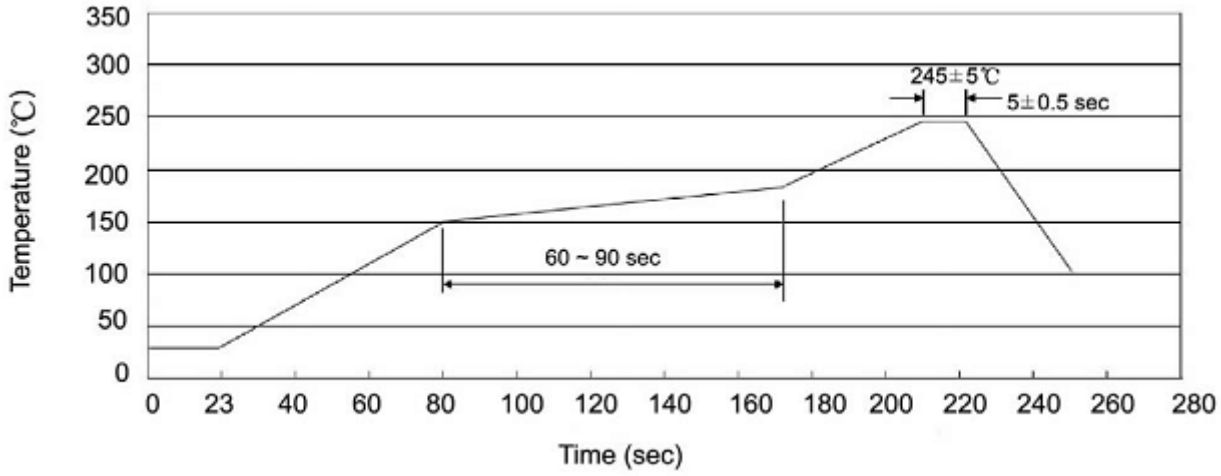
说明：

BR：	为公司代码
LV4045：	为产品型号
****：	为生产批号代码，随生产批号变化。

Note:

BR:	Company Code.
LV4045:	Product Type.
****:	Lot No. Code, code change with Lot No.

波峰焊温度曲线图(无铅) / Temperature Profile for Dip Soldering(Pb-Free)



说明：

1、预热温度 25～150℃，时间 60～90sec;

2、峰值温度 245±5℃，时间持续为 5±0.5sec;

3、焊接制程冷却速度为 2～10℃/sec.

Note:

1.Preheating:25~150℃, Time:60~90sec.

2.Peak Temp.:245±5℃, Duration:5±0.5sec.

3. Cooling Speed: 2~10℃/sec.

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

温度：260±5℃　　时间：10±1 sec.　　Temp.:260±5℃　　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: mm³)		
	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-263	800	1	800	5	4,000	13″ ×24	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: mm³)		
	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-263	50	20	1,000	5	5,000	532×33×7.0	555×164×50	575×290×180

使用说明 / Notices