BRLV30T50BBD

Rev.A .Feb.-2018

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, 高效率运行。

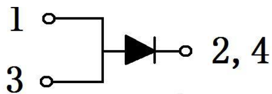
Low forward voltage drop, low power losses，High efficiency operation.

用途 / Applications

用于太阳能电池接线盒中的旁路保护二极管，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 solar cell junction box as a bypass diode for protection,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
Maximum repetitive peak reverse voltage	V_{RRM}	50	V
Maximum RMS Voltage	V_{RMS}	31.5	V
Maximum Average forward current	$I_{F(AV)}$	30	A
Non Repetitive Peak Surge Current	I_{FSM}	350	A
Thermal Resistance Junction to Case	$R_{\theta Jc}$	1.6	℃/W
Operating junction and storage temperature range (AC mode)	T_j , T_{stg}	-65～+150	℃
Junction temperature in DC forward current without reverse bias, t≤1 h	T_j max. (1)	≤200	℃

注/Notes：

（1）In accordance with the IEC 61215 Ed.2 bypass diode heating test standard,tested under forward DC condition,no reverse voltage drod was applied,the power up time is less than 1H.bypass diode thermal test，DC forward current without reverse bias.

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

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
Breakdown voltage	V_{BR}	I_R =500 uA	50			V
Forward Voltage	V_F （Note 1）	I_F =15A(T_A =25℃)		0.45	0.50	V
		I_F =30A(T_A =25℃)		0.50	0.54	V
		I_F =15A(T_A =125℃)			0.40	V
		I_F =30A(T_A =125℃)			0.50	V
Instantaneous Reverse Current	I_R （Note 2）	V_R=45V(T_A =25℃)			100	μA
		V_R=45V(T_A =125℃)			50	mA

注/Notes：

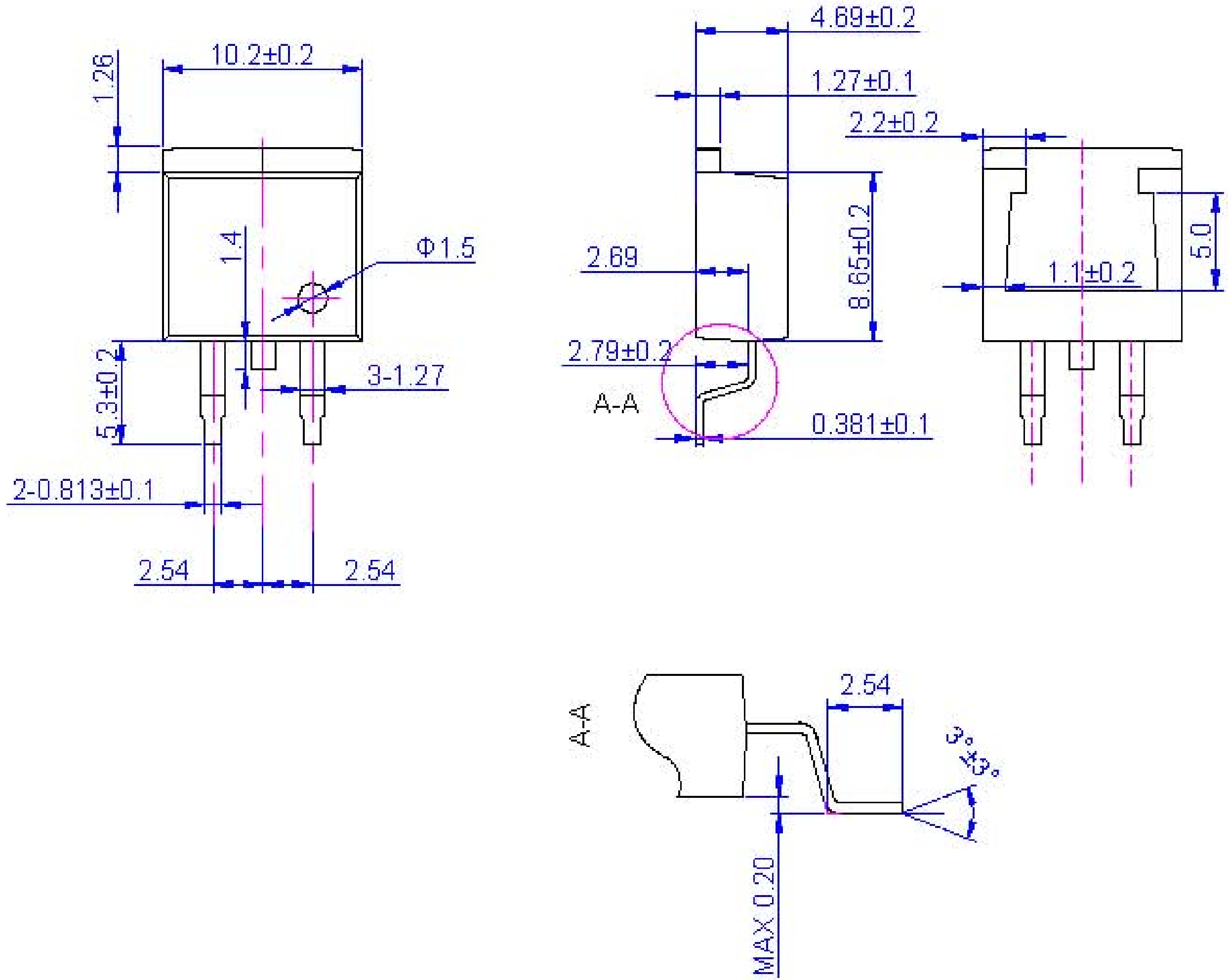
(1) Pulse test: 300 μs pulse width, 1 % duty cycle

(2) Pulse test: Pulse width ≤ 40 ms

(3) 除非特别注明，数值为一个芯片的参数。

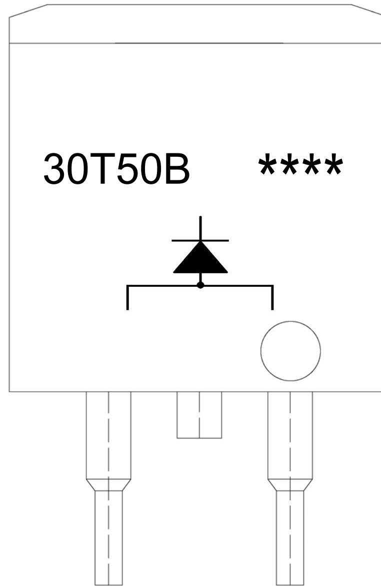
Unless otherwise noted, values for the parameters of a single chip

外形尺寸图 / Package Dimensions



注：未注公差±0.15mm；未注 R＜0.15mm

印章说明 / Marking Instructions



说明：

30T50B：为型号代码

：为内部结构

****：为生产批号代码，随生产批号变化。

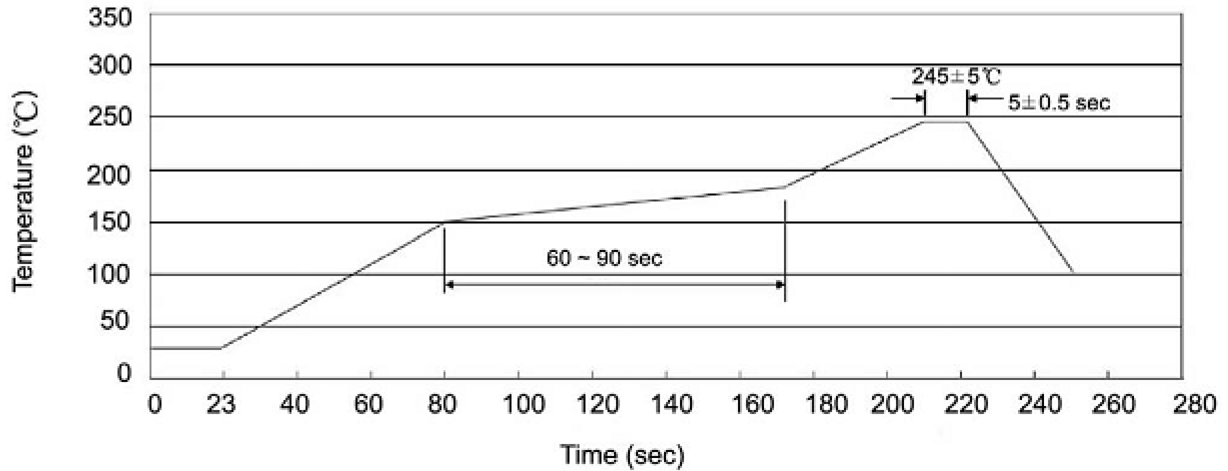
Note:

30T50B：Product Type Code.

：Internal Structure

****: 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℃，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.

套管包装 / TUBE

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm^3)		
	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

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-263	800	1	800	5	4,000	13″ ×24	360×360×50	385×257×392

使用说明 / Notices