

MJE15036B

Rev.E May.-2016

描述 / Descriptions

TO-263 塑封封装 NPN 半导体三极管。Silicon NPN transistor in a TO-263 Plastic Package.

特征 / Features

直流电流增益高，集电极-发射极击穿电压高，高电流增益-带宽积，与 MJE15037B 互补。

High DC current gain, High V_{CE0} , High f_T . Complementary pair with MJE15037B.

用途 / Applications

用于功率放大器的高频驱动。

Designed for use as high-frequency drivers in audio amplifiers.

内部等效电路 / Equivalent Circuit



引脚排列 / Pinning



PIN1 : Base PIN 2、 4 : Collector PIN 3 : Emitter

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)

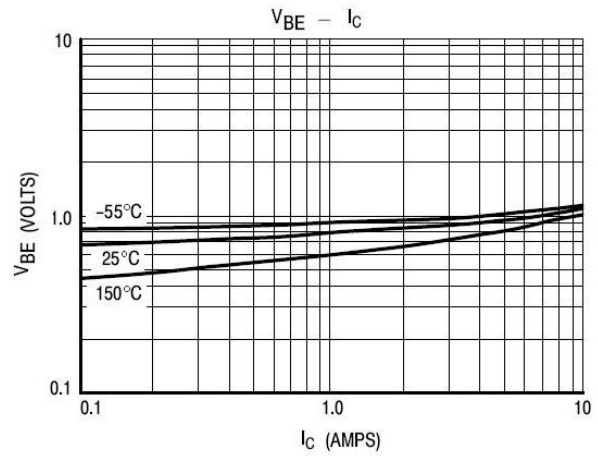
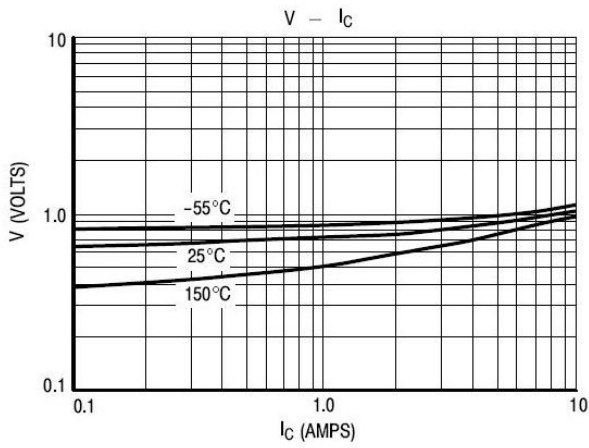
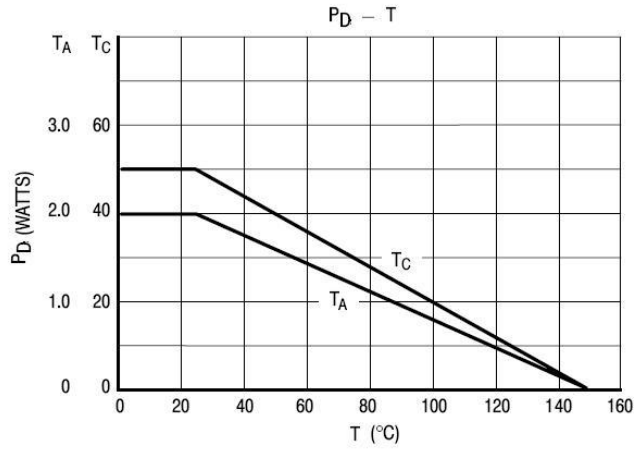
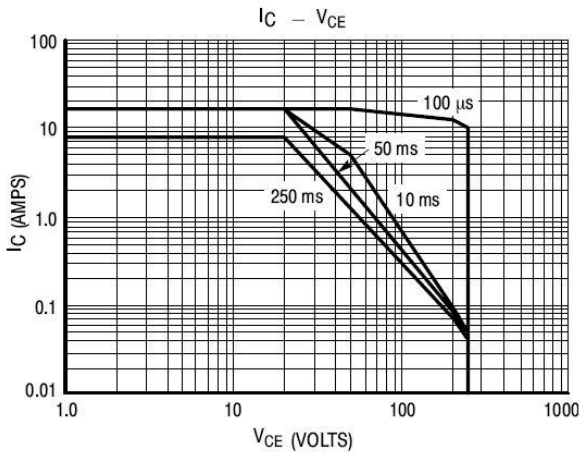
参数 Parameter	符号 Symbol	数值 Rating	单位 Unit
Collector to Base Voltage	V_{CBO}	250	V
Collector to Emitter Voltage	V_{CEO}	250	V
Emitter to Base Voltage	V_{EBO}	5	V
Collector Current - Continuous	I_C	8	A
Base current	I_B	2	A
Total power dissipation	P_D	2	W
	$P_D(T_C=25^\circ\text{C})$	50	W
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	-65~150	°C
Thermal Resistance Junction-case	$R_{\theta JC}$	2.5	°C/W
Thermal Resistance Junction-ambient	$R_{\theta JA}$	62.5	°C/W

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

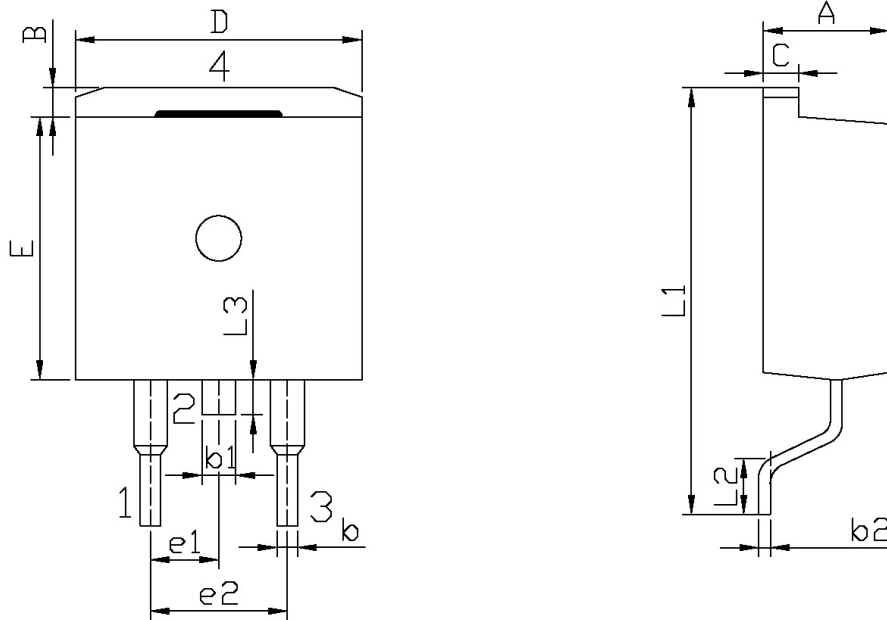
参数 Parameter	符号 Symbol	测试条件 Test Conditions	最小值 Min	典型值 Typ	最大值 Max	单位 Unit
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C=10\text{mA}$ $I_B=0$	250			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=250\text{V}$ $I_E=0$			1.0	μA
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=5.0\text{V}$ $I_C=0$			1.0	μA
DC Current Gain	* $h_{FE(1)}$	$V_{CE}=5.0\text{V}$ $I_C=1.0\text{A}$	5000			
	* $h_{FE(2)}$	$V_{CE}=5.0\text{V}$ $I_C=0.5\text{A}$	5000			
	* $h_{FE(3)}$	$V_{CE}=5.0\text{V}$ $I_C=2.0\text{A}$	3000			
Collector to Emitter Saturation Voltage*	* $V_{CE(sat)}$	$I_C=1.0\text{A}$ $I_B=0.1\text{A}$			1.0	V
Base to Emitter On Voltage*	* $V_{BE(on)}$	$V_{CE}=5.0\text{V}$ $I_C=1.0\text{A}$			1.5	V
Transition Frequency	f_T	$V_{CE}=10\text{V}$ $I_C=500\text{mA}$ $f=1.0\text{MHz}$	30			MHz

*脉冲测试：脉宽 $\leq 300\mu\text{s}$ ，占空比 $\leq 2\%$ 。*Pulse Test: Pulse Width $\leq 300\mu\text{s}$, Duty Cycle $\leq 2\%$ 。

电参数曲线图 / Electrical Characteristic Curve



外形尺寸图 / Package Dimensions

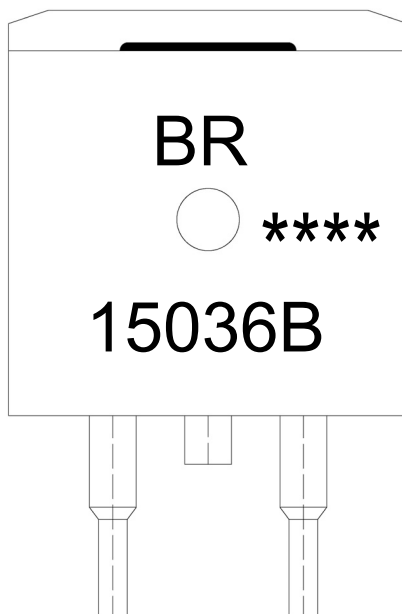


单位: mm

Symbol	Dimensions In Millimeters		Symbol	Dimensions In Millimeters	
	Min	Max		Min	Max
A	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			

TO-263

印章说明 / Marking Instructions



说明：

BR： 为公司代码

15036B： 为型号代码

****： 为生产批号代码，随生产批号变化。

Note:

BR: Company Code

15036B: 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-263	800	1	800	5	4,000	13" x24	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 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

使用说明 / Notices