

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.

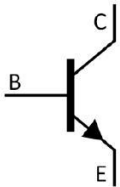
特征 / Features

与 TIP42CB 互补。
Complement to TIP42CB.

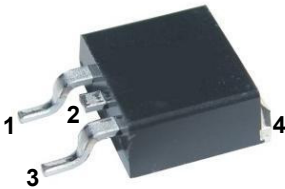
用途 / Applications

用于中功率线性开关放大。
Medium power linear switching applications.

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.

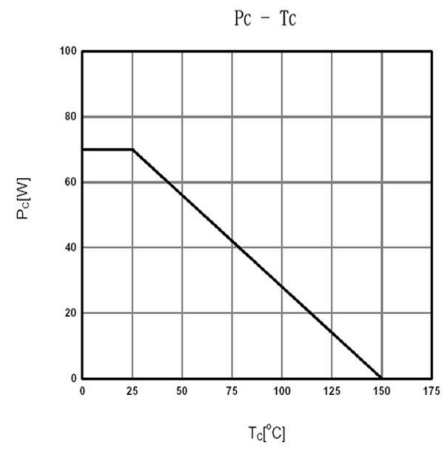
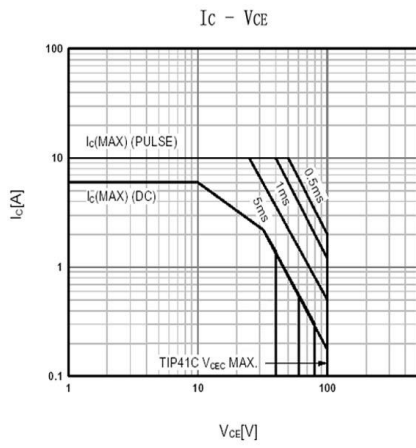
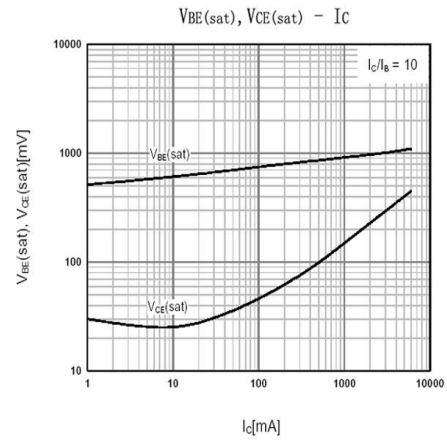
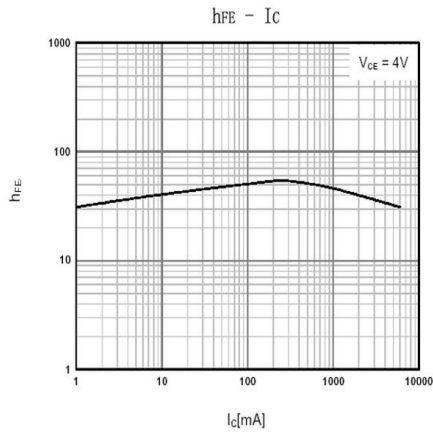
极限参数 / Absolute Maximum Ratings(Ta=25°C)

参数 Parameter	符号 Symbol	数值 Rating	单位 Unit
Collector to Base Voltage	V_{CBO}	100	V
Collector to Emitter Voltage	V_{CEO}	100	V
Emitter to Base Voltage	V_{EBO}	5	V
Collector Current - Continuous	I_C	6	A
Peak Collector Current	I_{CP}	10	A
Base Current - Continuous	I_B	2	A
Collector Power Dissipation	P_C	2	W
Collector Power Dissipation	$P_C(T_c=25^\circ\text{C})$	65	W
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stag}	-55~150	°C

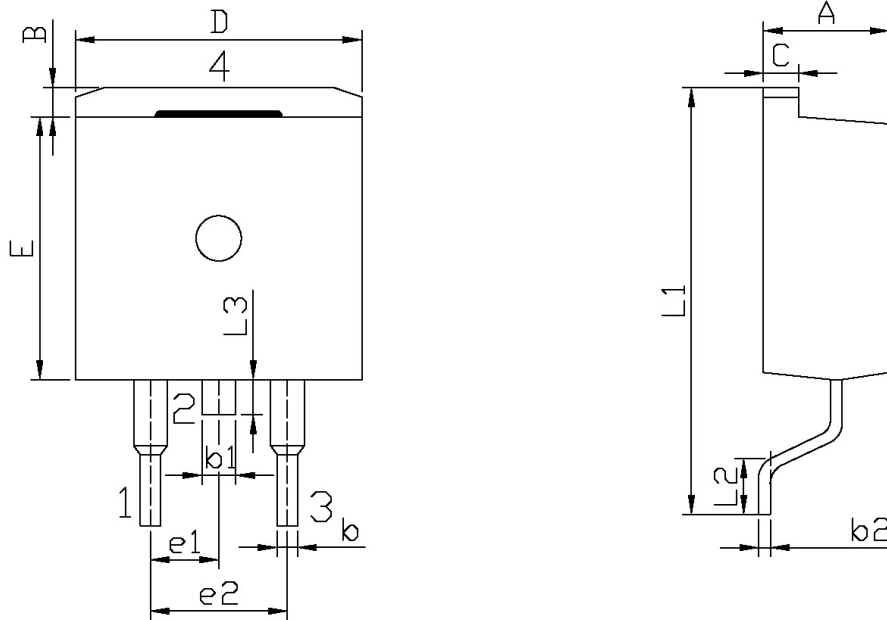
电性能参数 / Electrical Characteristics(Ta=25°C)

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
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C=30\text{mA}$ $I_B=0$	100			V
Collector Cut-Off Current	I_{CEO}	$V_{CE}=60\text{V}$ $I_B=0$			0.7	mA
Collector Cut-Off Current	I_{CES}	$V_{CE}=100\text{V}$ $V_{EB}=0$			400	μA
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=5\text{V}$ $I_C=0$			1	mA
DC Current Gain	$h_{FE(1)}$	$V_{CE}=4\text{V}$ $I_C=3\text{A}$	15		75	
	$h_{FE(2)}$	$V_{CE}=4\text{V}$ $I_C=0.3\text{A}$	30			
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=6\text{A}$ $I_B=0.6\text{A}$			1.5	V
Base to Emitter Voltage	V_{BE}	$I_C=6\text{A}$ $V_{CE}=4\text{V}$			2	V
Transition Frequency	f_T	$V_{CE}=10\text{V}$ $I_C=500\text{mA}$	3			MHz

电参数曲线图 / Electrical Characteristic Curve



外形尺寸图 / Package Dimensions

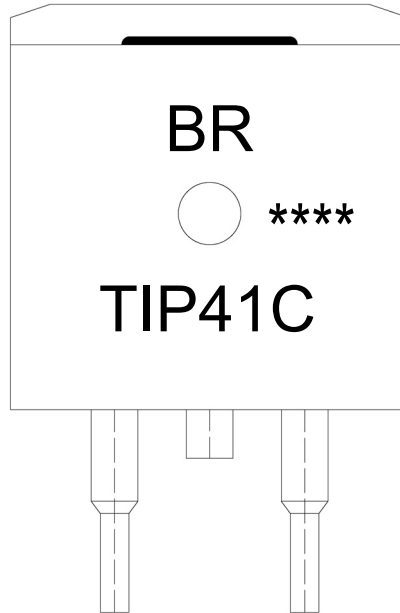


单位: mm

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

TIP41C： 为产品型号

****： 为生产批号代码，随生产批号变化。

Note:

BR: Company Code

TIP41C: 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°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