

TIP122L(BR3DA122LQ)

Rev.C Feb.-2015

描述 / Descriptions

TO-126 塑封封装 NPN 半导体三极管。Silicon NPN transistor in a TO-126 Plastic Package.

特征 / Features

与 TIP127L(BR3CA127LQ)互补。

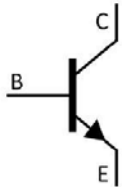
Complement to TIP127L(BR3CA127LQ).

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 : Emitter

PIN 2 : Collector

PIN 3 : Base

放大及印章代码 / h_{FE} Classifications & Marking

见印章说明。See Marking Instructions.

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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}	5.0	V
Collector Current - Continuous	I_C	5.0	A
Collector Power Dissipation	$P_C(T_c=25^{\circ}\text{C})$	40	W
Junction Temperature	T_j	150	$^{\circ}\text{C}$
Storage Temperature Range	T_{stg}	-55~150	$^{\circ}\text{C}$

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

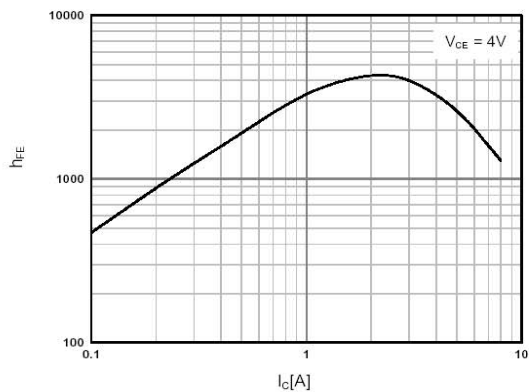
参数 Parameter	符号 Symbol	测试条件 Test Conditions	最小值 Min	典型值 Typ	最大值 Max	单位 Unit
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C=100\text{mA}$ $I_B=0$	100			V
Collector Cut-Off Current	I_{CEO}	$V_{CE}=50\text{V}$ $I_B=0$			0.5	mA
Collector Cut-Off Current	I_{CBO}	$V_{CB}=100\text{V}$ $I_E=0$			0.2	mA
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=5.0\text{V}$ $I_C=0$			2.0	mA
DC Current Gain ₍₁₎	$h_{FE(1)}$	$V_{CE}=3.0\text{V}$ $I_C=0.5\text{A}$	1000			
DC Current Gain ₍₂₎	$h_{FE(2)}$	$V_{CE}=3.0\text{V}$ $I_C=3.0\text{A}$	1000			
Collector to Emitter Saturation Voltage ₍₁₎	$V_{CE(sat)(1)}$	$I_C=3.0\text{A}$ $I_B=12\text{mA}$			2.0	V
Collector to Emitter Saturation Voltage ₍₂₎	$V_{CE(sat)(2)}$	$I_C=5.0\text{A}$ $I_B=20\text{mA}$			4.0	V
Base to Emitter Voltage	V_{BE}	$I_C=3.0\text{A}$ $V_{CE}=3.0\text{V}$			2.5	V
Collector Output Capacitance	C_{ob}	$V_{CB}=10\text{V}$ $I_E=0$ $f=0.1\text{MHz}$			200	pF

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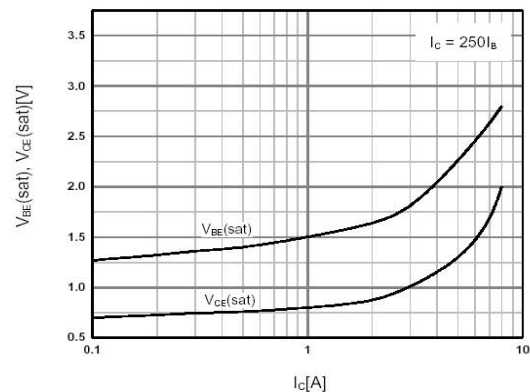
Rev.C Feb.-2015

电参数曲线图 / Electrical Characteristic Curve

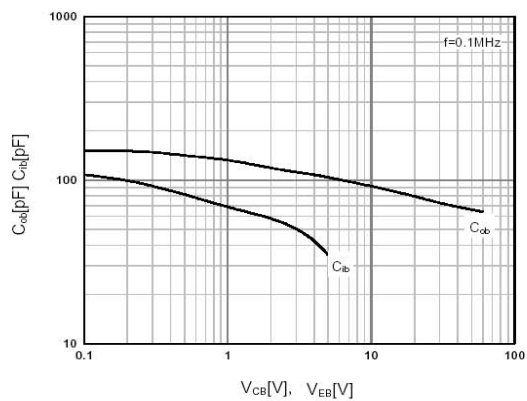
$h_{FE} - I_C$



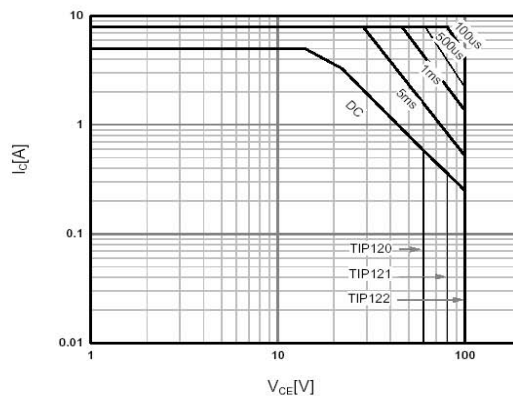
$V_{BE(sat)}, V_{CE(sat)} - I_C$



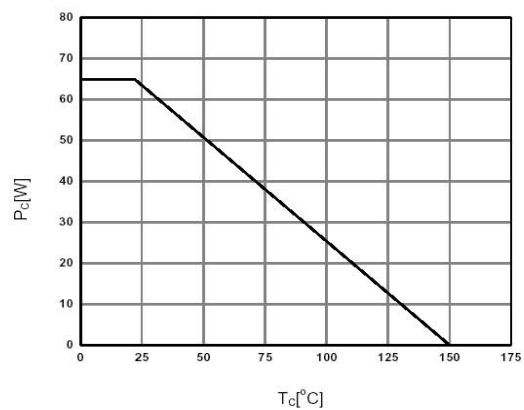
$C_{ob}, C_{ib} - V_{CB}, V_{EB}$



$I_C - V_{CE}$



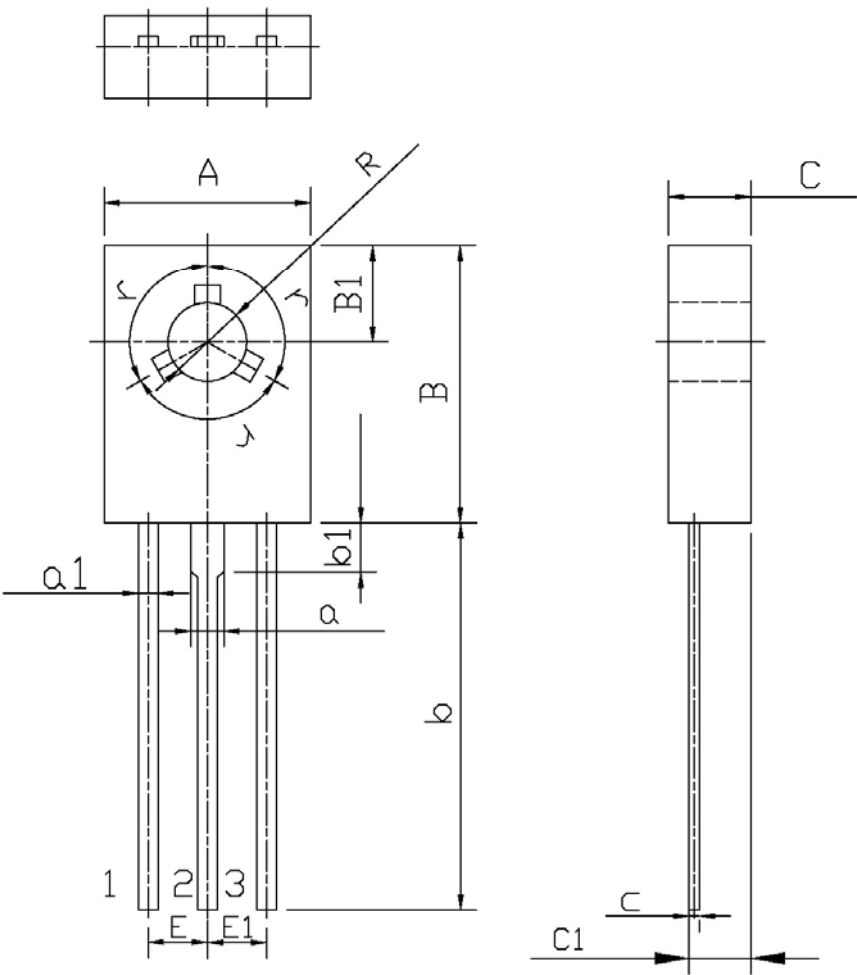
$P_C - T_C$



外形尺寸图 / Package Dimensions

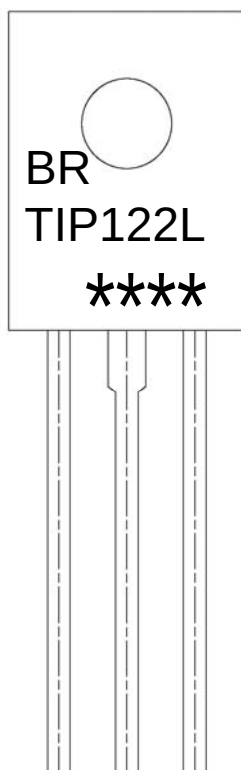
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单位: mm



Symbol	Dimensions In Millimeters		Symbol	Dimensions In Millimeters	
	Min	Max		Min	Max
A	7.8	8.2	a1	0.66	0.86
B	10.6	11.0	E	2.1	2.5
B1	3.7	3.9	C	2.7	2.9
R	2.9	3.3	C1	1.57	1.77
b	14	16	c	0.3	0.5
b1	1.9		a	1.37	
E1	2.1	2.5	r	120°	

印章说明 / Marking Instructions



说明：

BR： 为公司代码

TIP122L： 为型号代码

****： 为生产批号代码，随生产批号变化。

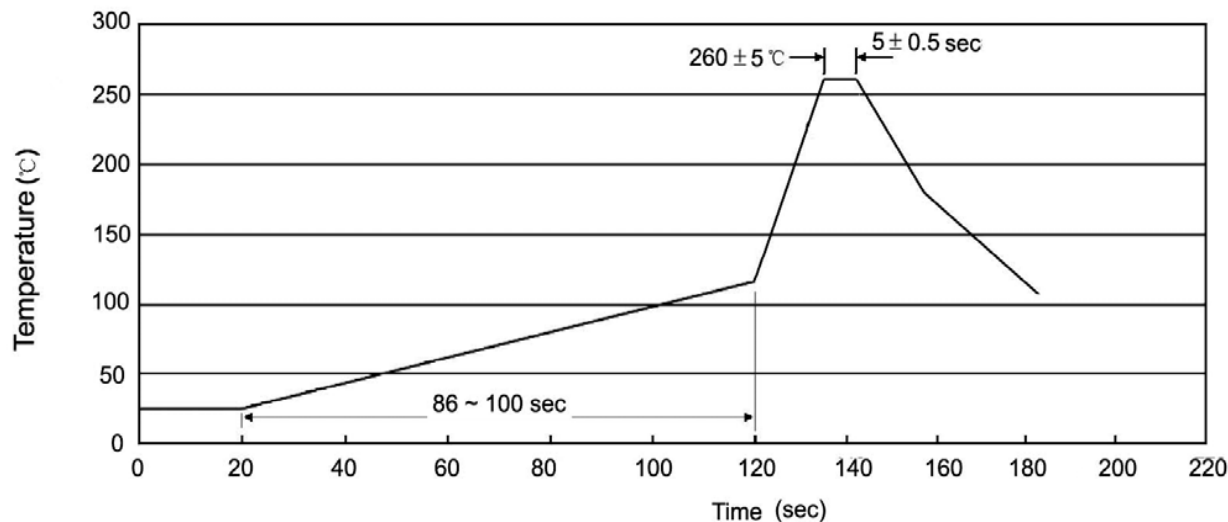
Note:

BR: Company Code

TIP122L: 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 260±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.:260±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：270±5°C

时间：10±1 sec.

Temp.:270±5°C

Time:10±1 sec

包装规格 / Packaging SPEC.

散件包装 / BULK

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-126/F	500	6	3,000	5	15,000	135×190	237×172×102	560×245×195

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-126/F	65	26	1,690	5	8,450	532×31×5.6	555×164×50	575×290×180

使用说明 / Notices