

# TIP35C

Rev.E Mar.-2016

## 描述 / Descriptions

TO-3P 塑封封装 NPN 半导体三极管。Silicon NPN transistor in a TO-3P Plastic Package.

## 特征 / Features

低漏电流，高电流增益带宽，与 TIP36C 互补。

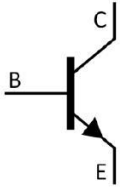
Low leakage current, high current gain bandwidth product, Complementary to TIP36C.

## 用途 / Applications

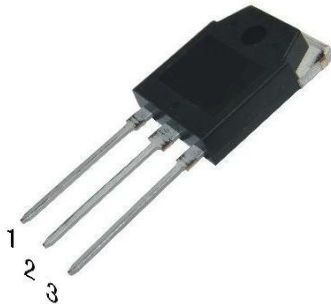
用于功率放大器和开关应用。

Power amplifier and switching applications.

## 内部等效电路 / Equivalent Circuit



## 引脚排列 / Pinning



PIN1 : Base

PIN 2 : Collector

PIN 3 : Emitter

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

见印章说明。See Marking Instructions.

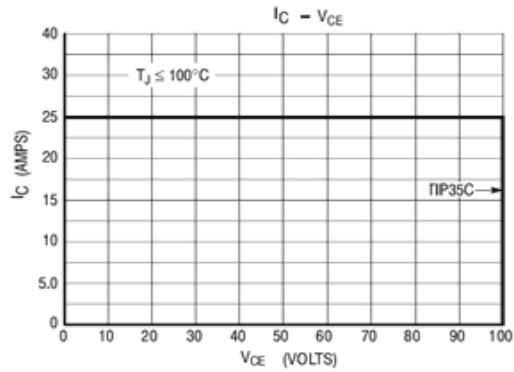
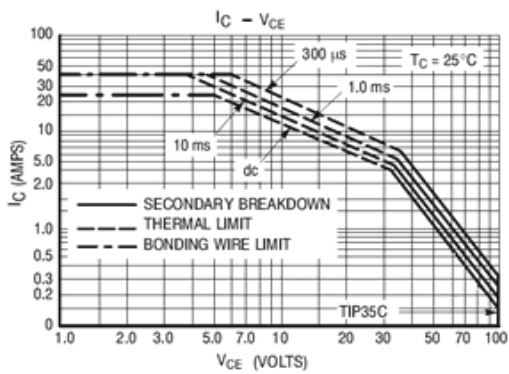
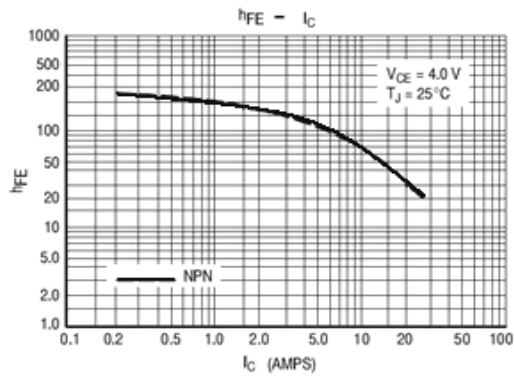
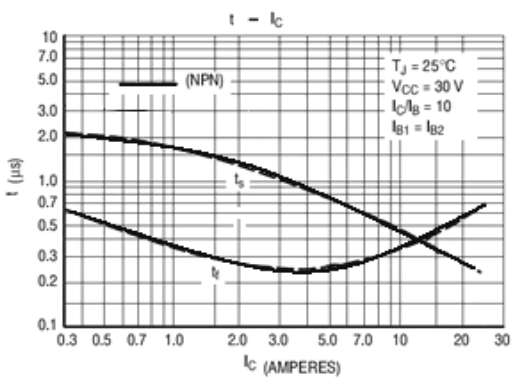
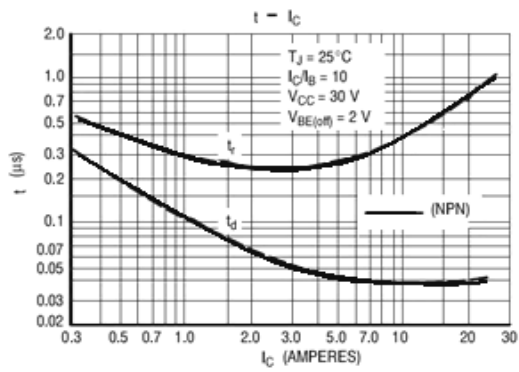
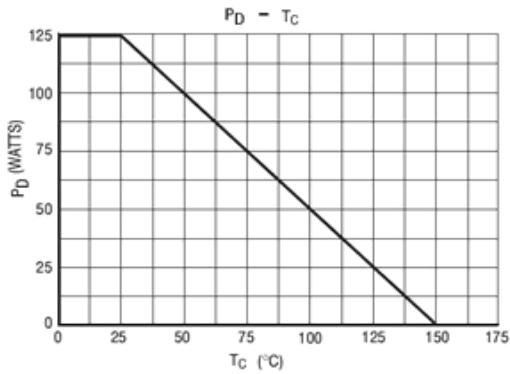
**极限参数 / Absolute Maximum Ratings(Ta=25°C)**

参数 Parameter	符号 Symbol	数值 Rating	单位 Unit
Collector to Base Voltage	$V_{CB0}$	100	V
Collector to Emitter Voltage	$V_{CEO}$	100	V
Emitter to Base Voltage	$V_{EBO}$	5	V
Collector Current - Continuous	$I_C$	25	A
Peak Collector Current	$I_{CM}$	50	A
Base Current	$I_B$	5	A
Total Power Dissipation	$P_{tot}$	125	W
Junction Temperature	$T_j$	150	°C
Storage Temperature Range	$T_{stg}$	-65~150	°C
Thermal Resistance Junction	$R_{thj}$	1	°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 Cut-Off Current	$I_{CEO}$	$V_{CE}=60V$ $I_B=0$			1	mA
Collector Cut-Off Current	$I_{CES}$	$V_{CE}=\text{Rated } V_{CEO}$			0.7	mA
Emitter Cut-Off Current	$I_{EBO}$	$V_{EB}=5V$ $I_C=0$			1	mA
Collector to Emitter Breakdown Voltage	$V_{CEO}$	$I_C=30mA$ $I_B=0$	100			V
DC Current Gain	$h_{FE(1)}$	$V_{CE}=4V$ $I_C=1.5A$	20		80	
	$h_{FE(2)}$	$V_{CE}=4V$ $I_C=15A$	10			
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=15A$ $I_B=1.5A$			1.8	V
		$I_C=25A$ $I_B=5A$			4	V
Base to Emitter On Voltage	$V_{BE(ON)}$	$I_C=15A$ $V_{CE}=4V$			2	V
		$V_{CE}=4V$ $I_C=25A$			4	V
Transition Frequency	$f_T$	$V_{CE}=10V$ $f=1MHz$ $I_C=1A$	3			MHz

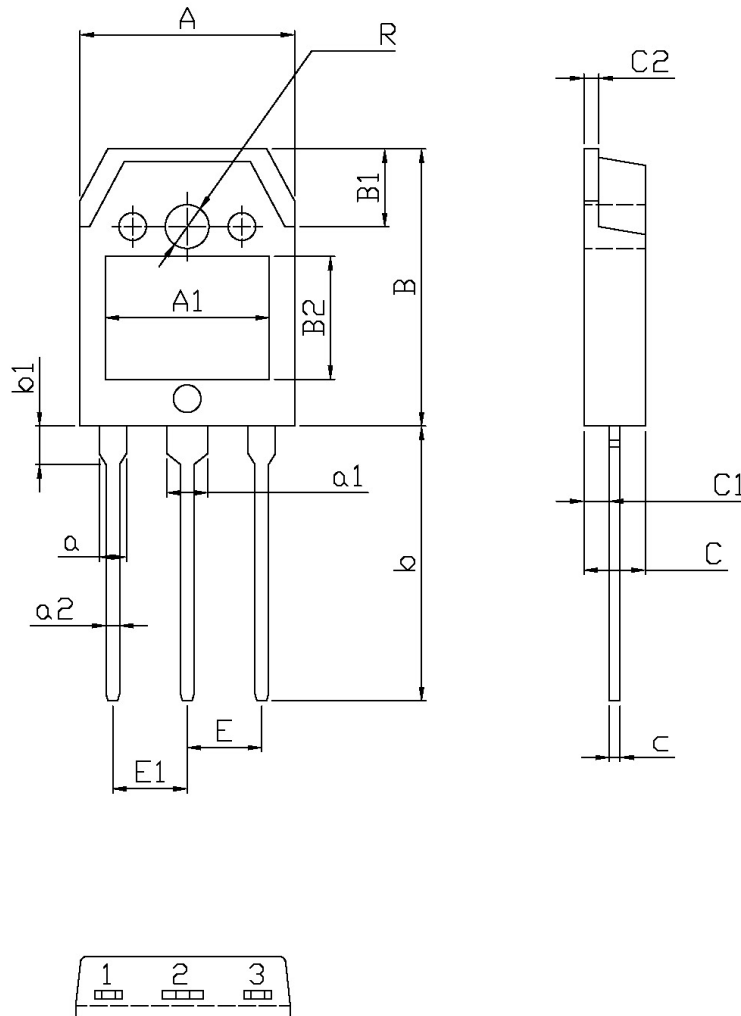
电参数曲线图 / Electrical Characteristic Curve



外形尺寸图 / Package Dimensions

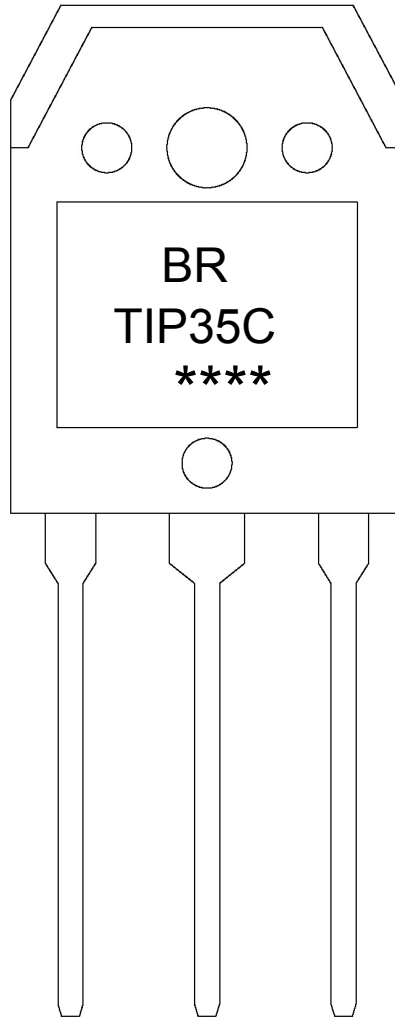
T0-3P

单位: mm



Symbol	Dimensions In Millimeters		Symbol	Dimensions In Millimeters	
	Min	Max		Min	Max
A	15.4	16.0	$a_2$	0.8	1.2
R	3.1	3.5	E	5.45	
B	19.8	20.8	E1	5.45	
B1	5.5	5.9	C	4.3	4.7
B2	9.0		C1	1.2	1.6
A1	12.0		C2	1.4	1.6
b	19.6	20.6	c	0.5	0.7
b1	3.0	3.4			
a	1.8	2.2			
$a_1$	2.8	3.2			

印章说明 / Marking Instructions



说明：

BR: 为公司代码

TIP35C : 为产品型号

\*\*\*\* : 为生产批号代码，随生产批号变化。

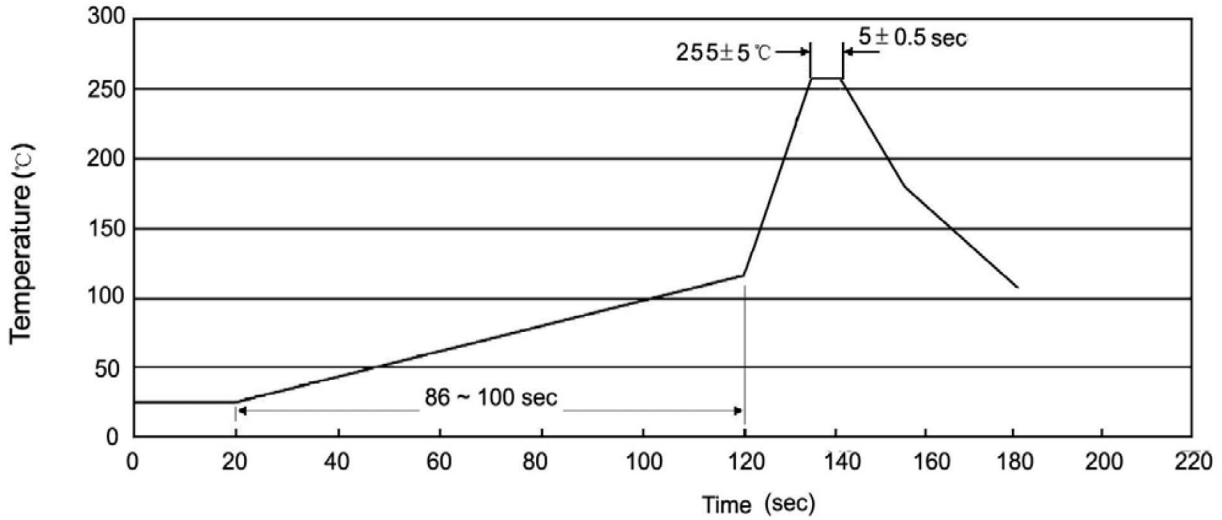
Note:

BR: Company Code.

TIP35C: 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 255±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.:255±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.**

套管包装 / TUBE

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm <sup>3</sup> )		
	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-3P	30	15	450	5	2250	497.5×46×8	555×164×50	575×290×180

**使用说明 / Notices**