

**描述 / Descriptions**

TO-220 塑封封装 NPN 半导体三极管。

Silicon NPN transistor in a TO-220 Plastic Package.

**特征 / Features**

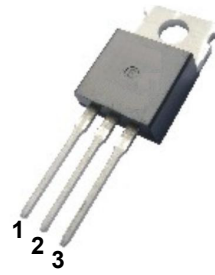
与 TIP42 互补。

Complement to TIP42.

**用途 / Applications**

用于中功率线性开关放大。

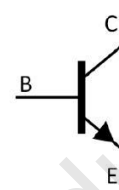
Medium power linear switching applications.



PIN1 : Base

PIN 2 : Collector

PIN 3 : Emitter

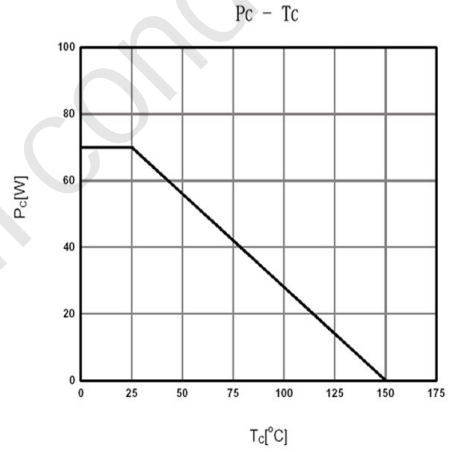
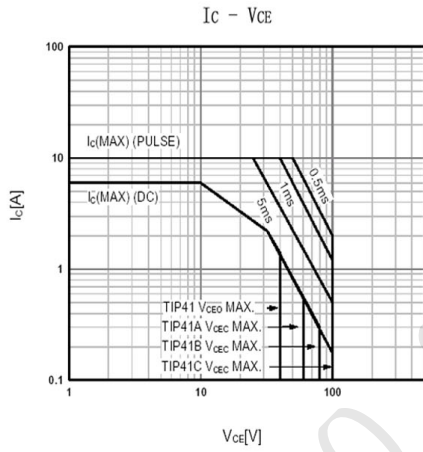
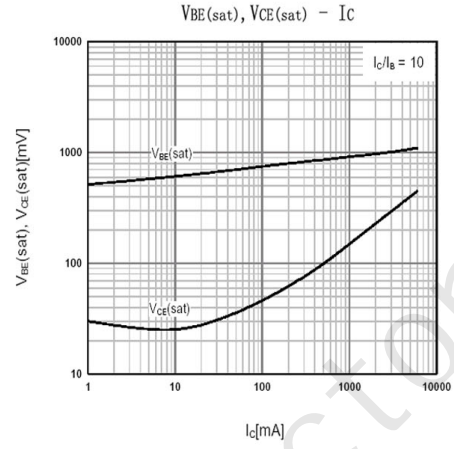
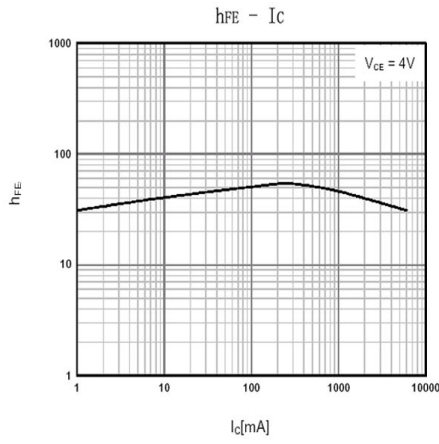

**极限参数 / Absolute Maximum Ratings(Ta=25°C)**

参数 Parameter	符号 Symbol	数值 Rating				单位 Unit
		TIP41	TIP41A	TIP41B	TIP41C	
Collector to Base Voltage	$V_{CBO}$	40	60	80	100	V
Collector to Emitter Voltage	$V_{CEO}$	40	60	80	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	$P_C$ ( $T_c=25^\circ C$ )	65				W
Junction Temperature	$T_J$	150				$^\circ C$
Storage Temperature Range	$T_{sag}$	-55~150				$^\circ C$

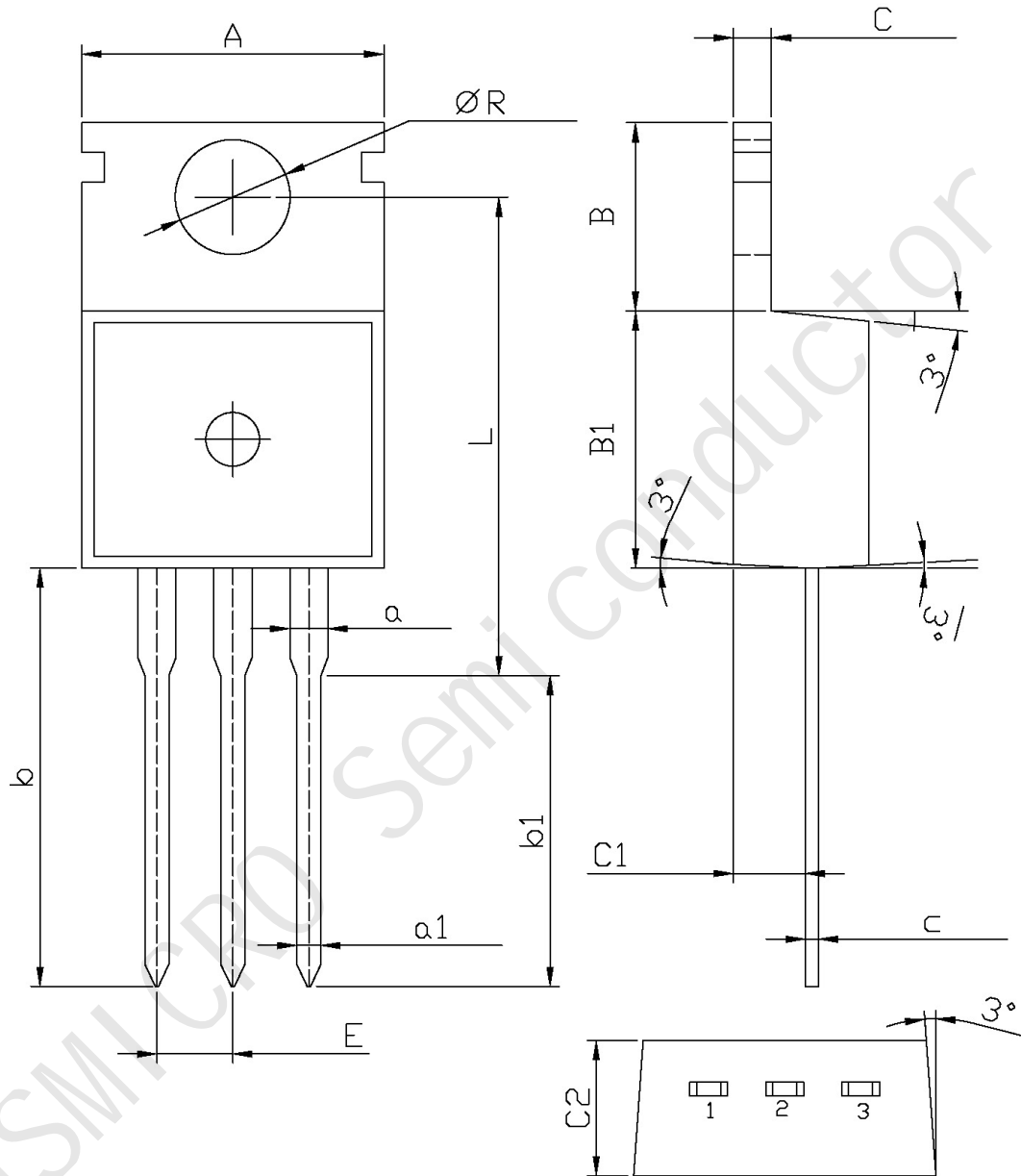
## 电性能参数 / Electrical Characteristics(Ta=25°C)

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 <sub>CEO</sub>	TIP41	40			V
		TIP41A	60			
		TIP41B	80			
		TIP41C	100			
Collector Cut-Off Current	I <sub>CEO</sub>	V <sub>CE</sub> =30V I <sub>B</sub> =0			0.7	mA
		V <sub>CE</sub> =60V I <sub>B</sub> =0				
Collector Cut-Off Current	I <sub>CES</sub>	V <sub>CE</sub> =40V V <sub>EB</sub> =0			400	μA
		V <sub>CE</sub> =60V V <sub>EB</sub> =0				
		V <sub>CE</sub> =80V V <sub>EB</sub> =0				
		V <sub>CE</sub> =100V V <sub>EB</sub> =0				
Emitter Cut-Off Current	I <sub>EBO</sub>	V <sub>EB</sub> =5V I <sub>C</sub> =0			1	mA
DC Current Gain	h <sub>FE(1)</sub>	V <sub>CE</sub> =4V I <sub>C</sub> =3A	15		75	
	h <sub>FE(2)</sub>	V <sub>CE</sub> =4V I <sub>C</sub> =0.3A	30			
Collector to Emitter Saturation Voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =6A I <sub>B</sub> =0.6A			1.5	V
Base to Emitter Voltage	V <sub>BE</sub>	I <sub>C</sub> =6A V <sub>CE</sub> =4V			2	V
Transition Frequency	f <sub>T</sub>	V <sub>CE</sub> =10V I <sub>C</sub> =500mA	3			MHz

电参数曲线图 / Electrical Characteristic Curve



## 外形尺寸图 / Package Dimensions



Symbol	Dimensions In Millimeters		Symbol	Dimensions In Millimeters	
	Min	Max		Min	Max
A	9.8	10.2	C	1.2	1.4
R	3.56	3.64	B	6.3	6.7
L	15.7	16.1	B1	9.0	9.4
b	12.6	13.6	C1	2.2	2.6
b1	9.6	10.6	a1	0.7	0.9
a	1.22	1.32	c	0.4	0.6
E	2.34	2.74	C2	4.3	4.7