2SC5244

Rev.D Mar.-2016

蓝箭电子
BLUE ROCKET ELECTRONICS

DATA SHEET

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

耐压高、速度快和安全工作区宽。

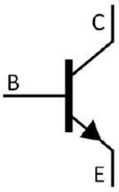
High breakdown voltage, high speed, wide SOA.

用途 / Applications

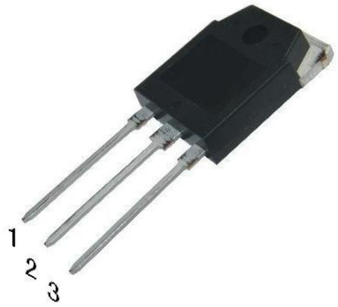
用于电视、CRT 显示器的水平偏转输出。

Horizontal deflection output for TV and CRT monitor.

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℃)

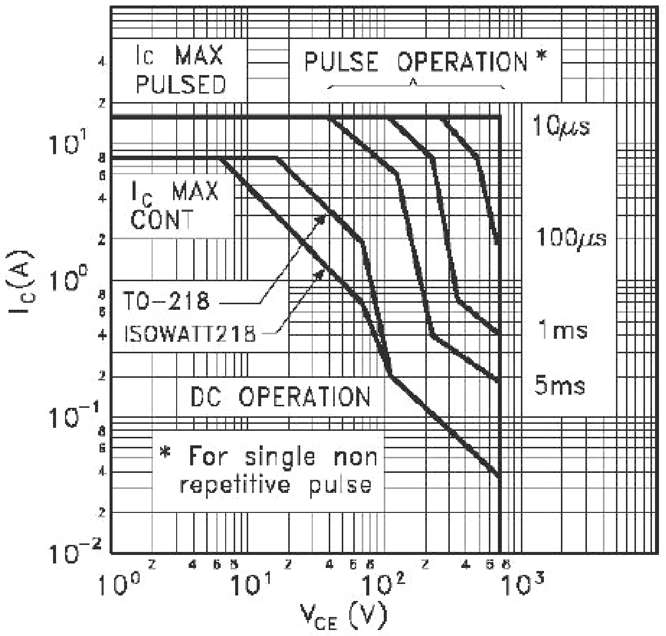
参数 Parameter	符号 Symbol	数值 Rating	单位 Unit
Collector to Base Voltage	V_{CBO}	1500	V
Collector to Emitter Voltage	V_{CES}	1500	V
Collector to Emitter Voltage	V_{CEO}	800	V
Emitter to Base Voltage	V_{EBO}	6	V
Collector Current - Continuous	I_C	20	A
Peak Collector Current	I_{CP}	30	A
Base Current	P_C	3	W
Collector Power Dissipation	$P_{C(TC=25℃)}$	200	W
Junction Temperature	T_j	150	℃
Storage Temperature Range	T_{stg}	-55～150	℃

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

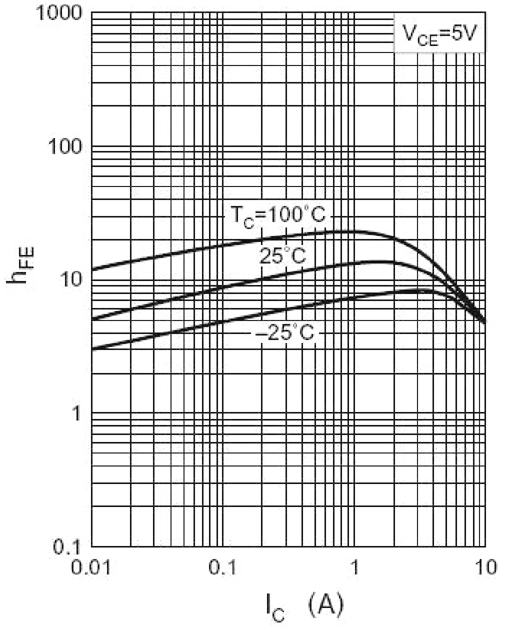
参数 Parameter	符号 Symbol	测试条件 Test Conditions	最小值 Min	典型值 Typ	最大值 Max	单位 Unit
Collector to Base Breakdown Voltage	V_{CBO}	I_C=1mA I_E=0	1500			V
Collector to Base Breakdown Voltage	V_{CEO}	I_C=10mA I_B=0	800			V
Collector to Emitter Breakdown Voltage	V_{EBO}	I_E=1mA I_C=0	6			V
Collector Cut-Off Current	I_{CBO}	V_{CB}=1500V I_E=0			1	mA
Collector Cut-Off Current	I_{CEO}	V_{CB}=800V I_E=0			1	mA
Emitter Cut-Off Current	I_{EBO}	V_{EB}=5V I_C=0			50	μA
DC Current Gain	$h_{FE(1)}$	V_{CE}=5V I_C=1A	10		30	
	$h_{FE(2)}$	V_{CE}=5V I_C=1mA	8		30	
	$h_{FE(3)}$	V_{CE}=5V I_C=10A	5		12	
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=10A I_B=2.8A			3	V
Base to Emitter Saturation Voltage	$V_{BE(sat)}$	I_C=10A I_B=2.8A			1.5	V
Transition Frequency	f_T	V_{CE}=10V I_C=0.1A f=0.5MHz		3		MHz
Storage Time	t_s	V_{CE}=5V I_C=0.5A UI9600		6.5		μs
Fall Time	t_f			1		μs

电参数曲线图 / Electrical Characteristic Curve

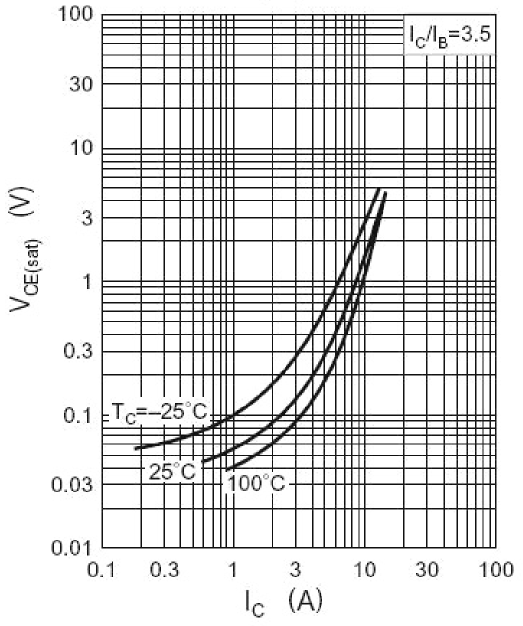
SOA



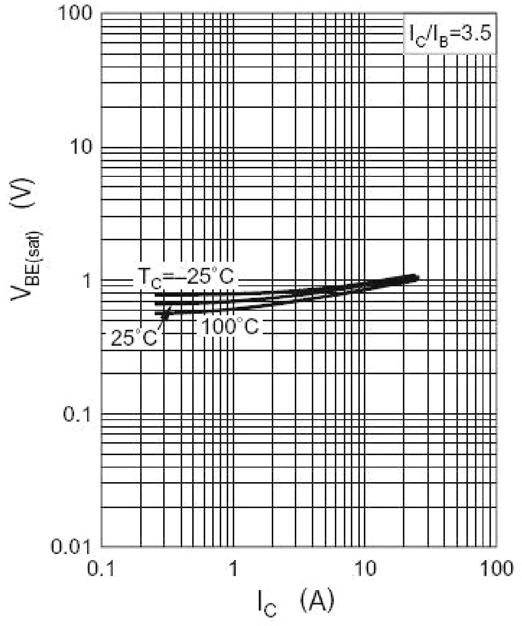
h_{FE} — I_C



$V_{CE(sat)}$ — I_C

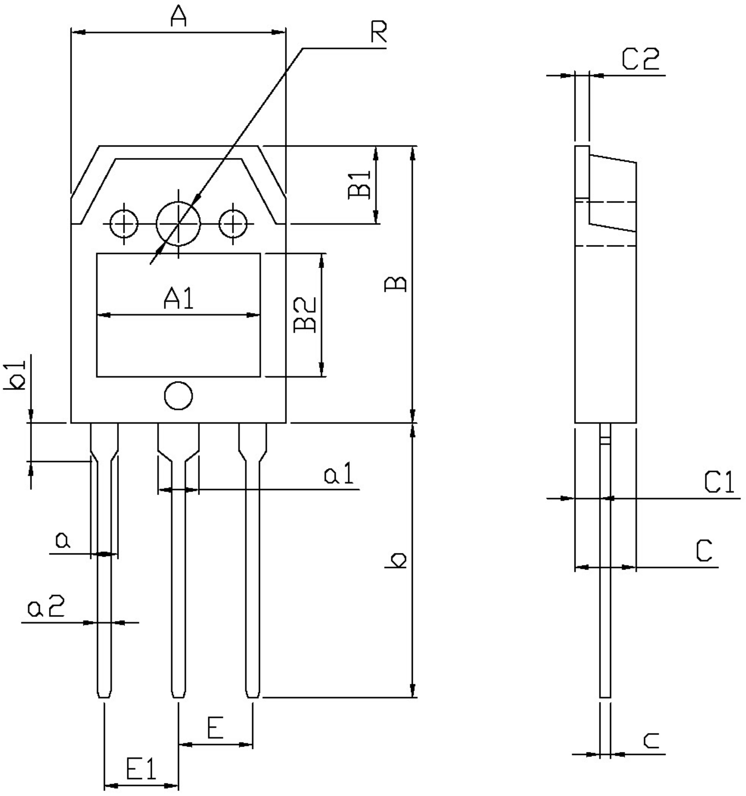


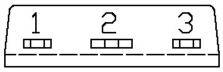
$V_{BE(sat)}$ — I_C



外形尺寸图 / Package Dimensions

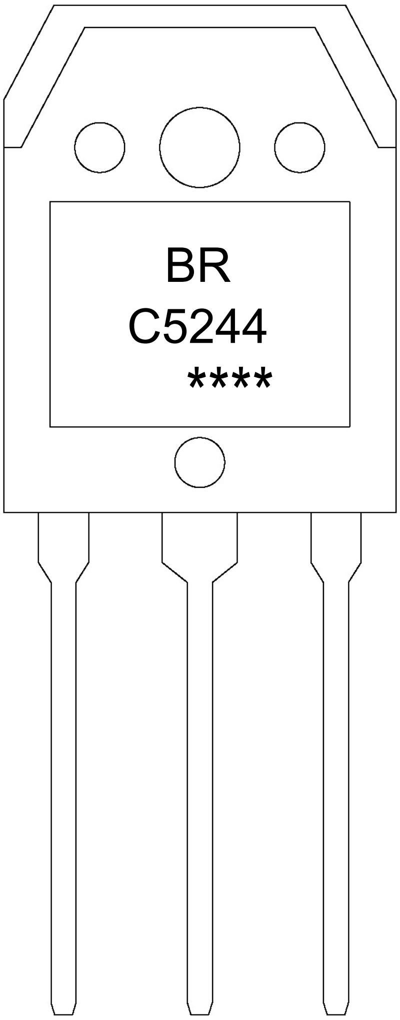
TO-3P 单位：mm





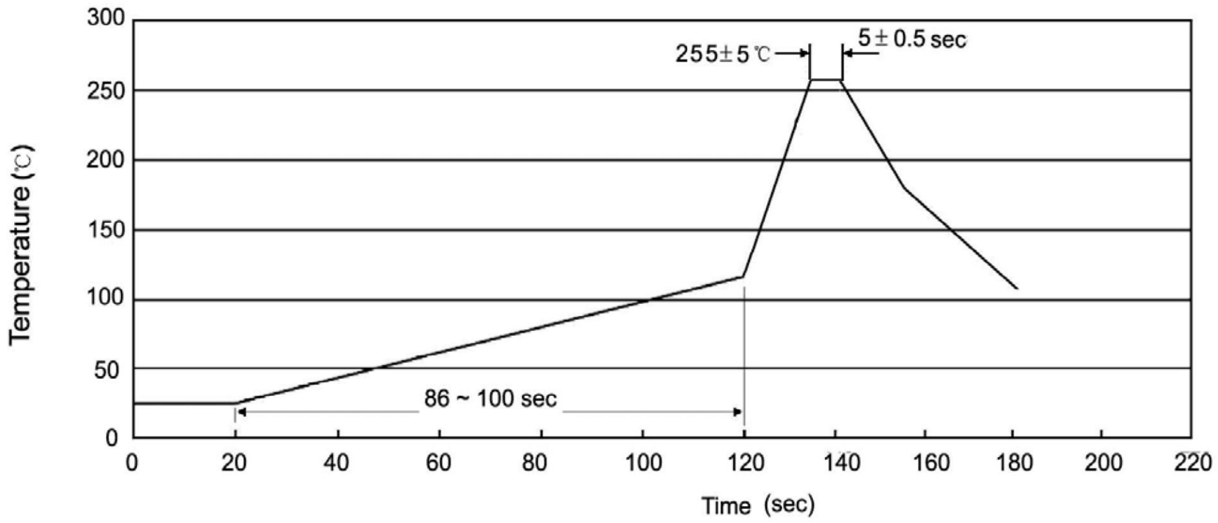
Symbol	Dimensions In Millimeters		Symbol	Dimensions In Millimeters	
	Min	Max		Min	Max
A	15.4	16.0	a2	0.8	1.2
R	3.1	3.5	E	5.45	
B	19.8	20.8	E1	5.45	
B1	5.5	5.9	C	4.3	4.7
B2	9.0		C1	1.2	1.6
A1	12.0		C2	1.4	1.6
b	19.6	20.6	c	0.5	0.7
b1	3.0	3.4			
a	1.8	2.2			
a1	2.8	3.2			

印章说明 / Marking Instructions



说明：	
BR:	为公司代码
C5244：	为型号代码
****：	为生产批号代码，随生产批号变化。
Note:	
BR:	Company Code.
C5244:	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℃，时间 60～90sec;
2、峰值温度 255±5℃，时间持续为 5±0.5sec;
3、焊接制程冷却速度为 2～10℃/sec.

Note:
1.Preheating:25~150℃, Time:60~90sec.
2.Peak Temp.:255±5℃, Duration:5±0.5sec.
3. Cooling Speed: 2~10℃/sec.

耐焊接热试验条件 / Resistance to Soldering Heat Test Conditions

温度：270±5℃ 时间：10±1 sec.

Temp.:270±5℃ 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^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-3P	30	15	450	5	2250	497.5×46×8	555×164×50	575×290×180

使用说明 / Notices