2N6517M

Rev.F Apr.-2017

蓝箭电子
BLUE ROCKET ELECTRONICS
DATA SHEET

描述 / Descriptions

SOT-23 塑封封装 NPN 半导体三极管。Silicon NPN transistor in a SOT-23 Plastic Package.

特征 / Features

高 V_{CEO}。

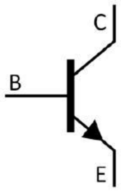
High Collector-Emitter Voltage.

用途 / Applications

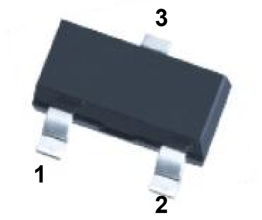
用于高压电路。

High voltage application.

内部等效电路 / Equivalent Circuit



引脚排列 / Pinning



PIN1：Base PIN 2：Emitter PIN 3：Collector

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

h_{FE} Range	30~200
Marking	3DH

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

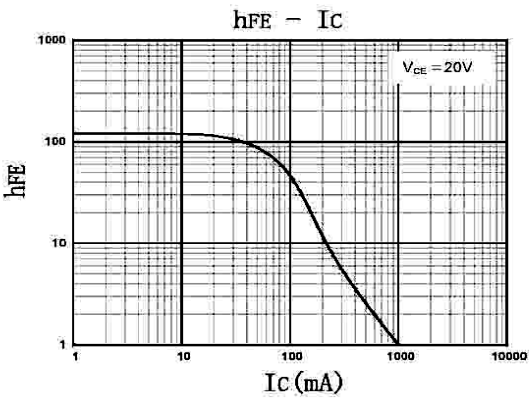
参数 Parameter	符号 Symbol	数值 Rating	单位 Unit
Collector to Base Voltage	V_{CBO}	350	V
Collector to Emitter Voltage	V_{CEO}	350	V
Emitter to Base Voltage	V_{EBO}	6.0	V
Collector Current	I_C	500	mA
Collector Power Dissipation	P_C	300	mW
Junction Temperature	T_j	150	℃
Storage Temperature Range	T_{stg}	-55～150	℃

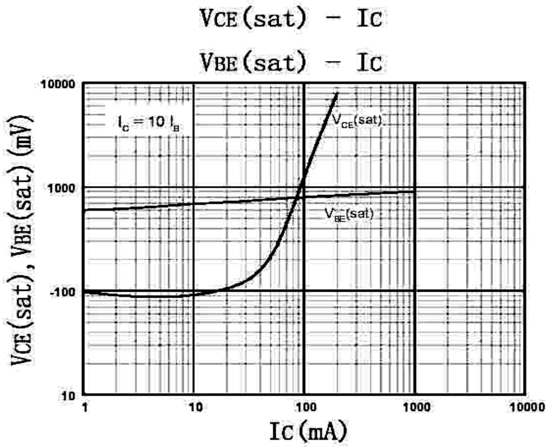
电性能参数 / Electrical Characteristics(Ta=25℃)

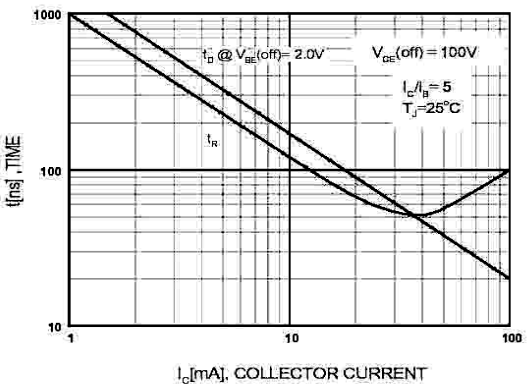
参数 Parameter	符号 Symbol	测试条件 Test Conditions	最小值 Min	典型值 Typ	最大值 Max	单位 Unit
Collector to Base Breakdown Voltage	V_{CBO}	I_C=100μA I_E=0	350			V
Collector to Emitter Breakdown Voltage	*V_{CEO}	I_C=1.0mA I_B=0	350			V
Emitter to Base Breakdown Voltage	V_{EBO}	I_E=10μA I_C=0	6.0			V
Collector Cut-Off Current	I_{CBO}	V_{CB}=250V I_E=0			0.05	μA
Emitter Cut-Off Current	I_{EBO}	V_{EB}=4.0V I_C=0			0.05	μA
DC Current Gain	$h_{FE(1)}$	V_{CE}=10V I_C=30mA	30		200	
	*$h_{FE(2)}$	V_{CE}=10V I_C=100mA	15			
	$h_{FE(3)}$	V_{CE}=10V I_C=1.0mA	20			
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=10mA I_B=1.0mA			0.3	V
	$V_{CE(sat)}$	I_C=50mA I_B=5.0mA			1.0	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	I_C=10mA I_B=1.0mA			0.75	V
	$V_{BE(sat)}$	I_C=30mA I_B=3.0mA			0.9	V
Base–Emitter On Voltage	*$V_{BE(ON)}$	V_{CE}=10V I_C=100mA			2.0	V
Transition Frequency	f_T	V_{CE}=20V I_C=10mA f=20MHz	40		200	MHz
Collector Output Capacitance	C_{ob}	V_{CB}=20V I_E=0 f=1MHz			6.0	pF

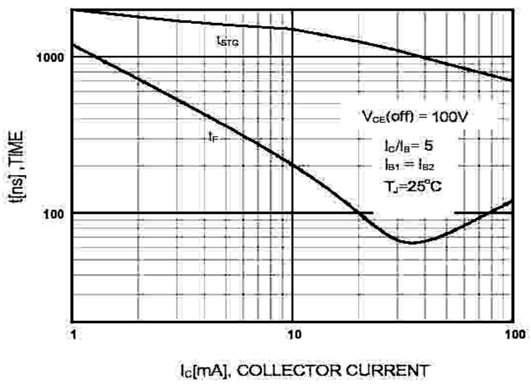
*脉冲测试：脉宽≤300μS，占空比≤2.0%。
*pulse test: pulse width≤300μS,duty cycle≤2.0%.

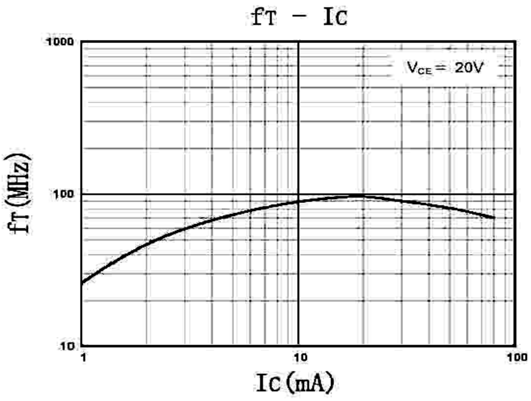
电参数曲线图 / Electrical Characteristic Curve

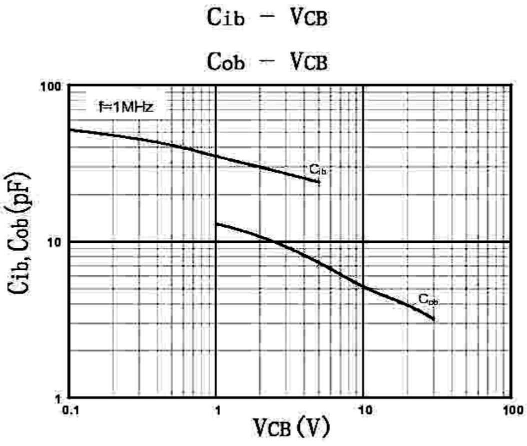

hFE － Ic


VCE(sat) － Ic
VBE(sat) － Ic





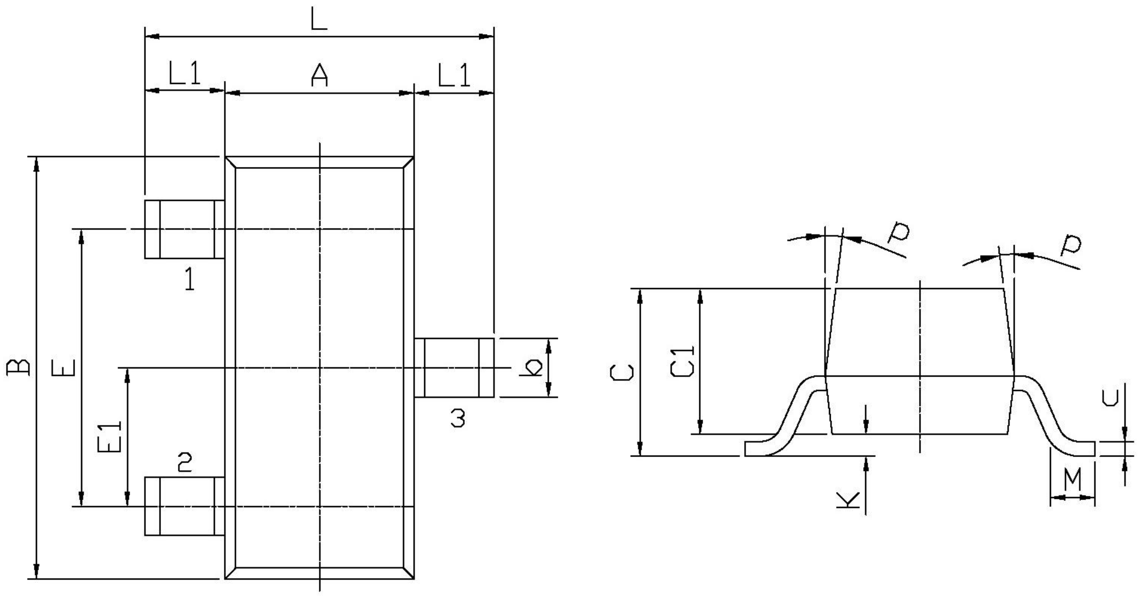

fT － Ic


Cib － VCB
Cob － VCB

外形尺寸图 / Package Dimensions

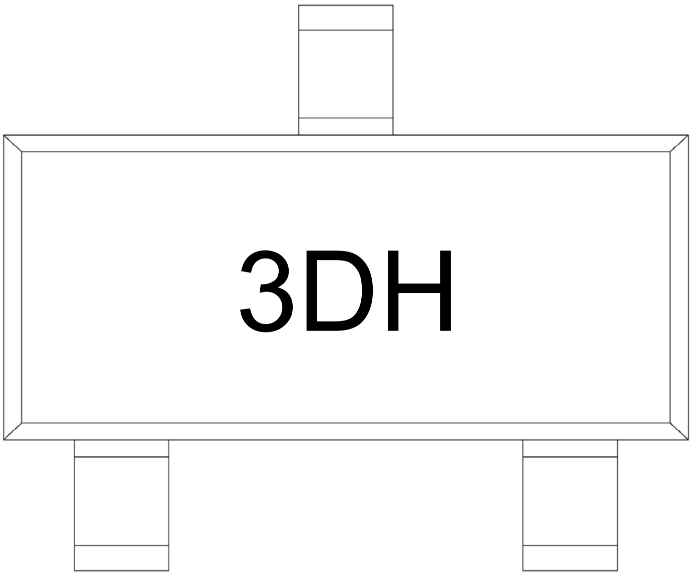
SOT-23

单位：mm



Symbol	Dimensions In Millmeters		Symbol	Dimensions In Millmeters	
	Min	Max		Min	Max
L	2.2	2.7	C	1.30Max	
L1	0.45	0.65	C1	0.90	1.20
A	1.15	1.50	c	0.05	0.20
B	2.70	3.10	K	0	0.10
E	1.70	2.10	M	0.20MIN	
E1	0.85	1.05	P	7°	
b	0.35	0.55			

印章说明　/　Marking Instructions



说明：

3D：　为型号代码

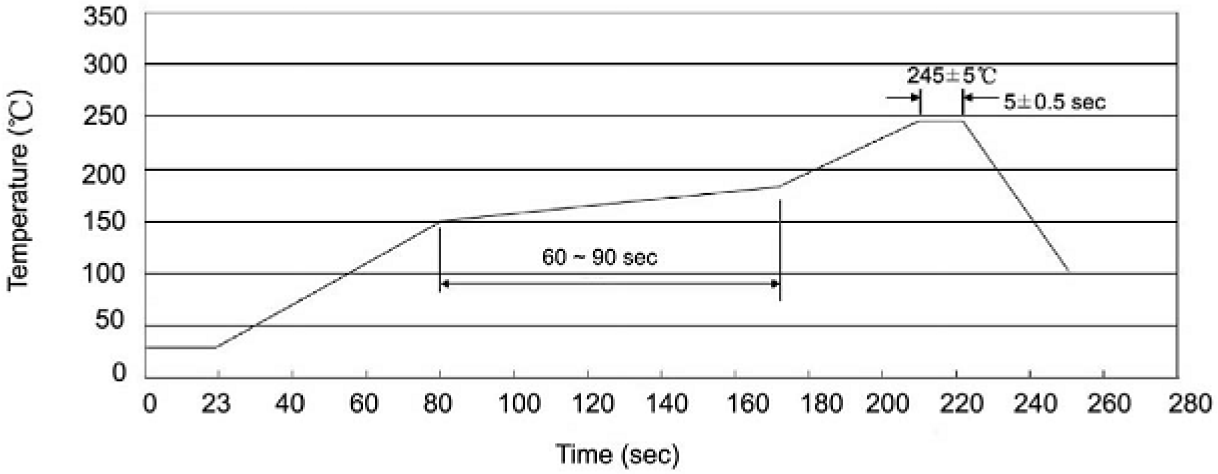
H：　为公司代码

Note:

3D：　Product Type Code

H：　Company Code

回流焊温度曲线图(无铅) / Temperature Profile for IR Reflow Soldering(Pb-Free)



说明：	Note:
1、预热温度 25 ~ 150℃，时间 60 ~ 90sec;	1.Preheating:25~150℃, Time:60~90sec.
2、峰值温度 245±5℃，时间持续为 5±0.5sec;	2.Peak Temp.:245±5℃, Duration:5±0.5sec.
3、焊接制程冷却速度为 2 ~ 10℃/sec.	3. Cooling Speed: 2~10℃/sec.

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

温度：260±5℃　　时间：10±1 sec.　　Temp.:260±5℃　　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
SOT-23	3,000	10	30,000	6	180,000	7″ ×8	180×120×180	390×385×205

使用说明 / Notices