

/ Descriptions

Silicon NPN transistor in a SOT-23 Plastic Package.

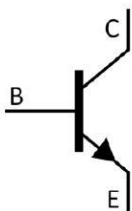
• / Features

High current gain.

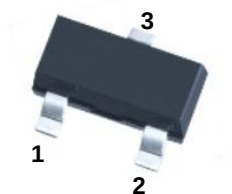
v / Applications

Applications requiring extremely high current gain device designed.

≈ / Equivalent Circuit



λ / Pinning



PIN1 Base PIN 2 Emitter PIN 3 Collector

. ↻ / Marking

h_{FE} Range	>10000
Marking	H1M

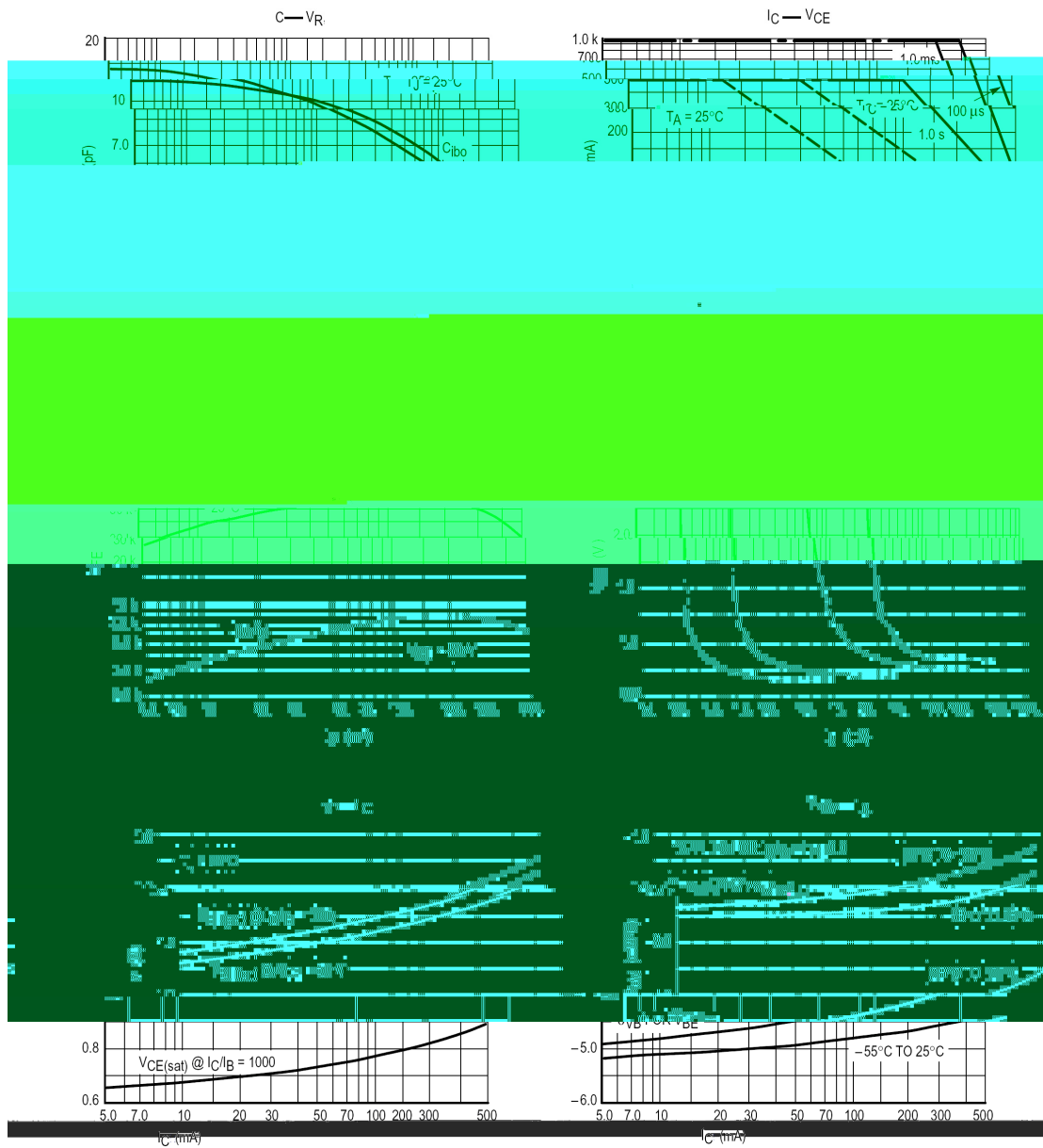
绝对最大额定值(Absolute Maximum Ratings)(Ta=25℃)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	30	V
Collector to Emitter Voltage	V_{CEO}	30	V
Emitter to Base Voltage	V_{EBO}	10	V
Collector Current - Continuous	I_C	300	mA
Collector Power Dissipation	P_C	225	mW
Junction Temperature	T_J	150	
Storage Temperature Range	T_{stg}	-55 ~ 150	

电 气 特 性 (Electrical Characteristics)(Ta=25℃)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	V_{CBO}	$I_C=100\mu A$ $I_E=0$	30			V
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C=500\mu A$ $I_B=0$	30			V
Emitter to Base Breakdown Voltage	V_{EBO}	$I_E=100\mu A$ $I_C=0$	10			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=30V$ $I_E=0$			0.1	μA
Emitter Base Cut-Off Current	I_{EBO}	$V_{EB}=10V$ $I_C=0$			0.1	μA
DC Current Gain	$h_{FE(1)}$	$V_{CE}=5.0V$ $I_C=10mA$	5000			
	$h_{FE(2)}$	$V_{CE}=5.0V$ $I_C=100mA$	10000			
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=100mA$ $I_B=0.1mA$			1.5	V
Base-Emitter On Voltage	V_{BE}	$I_C=100mA$ $V_{CE}=5.0V$			2.0	V
Transition Frequency	f_T	$I_C=10mA$ $f=100MHz$ $V_{CE}=5.0V$	125			MHz

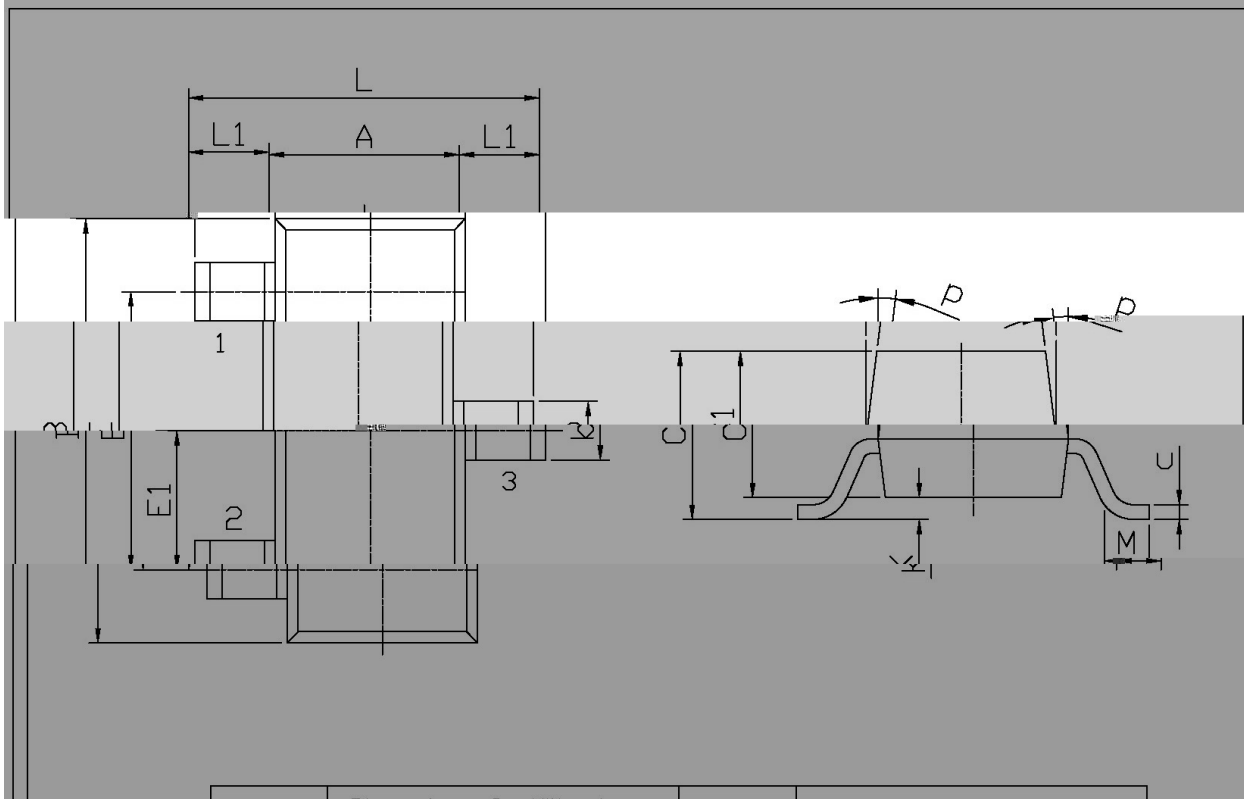
Electrical Characteristic Curve



/ Package Dimensions

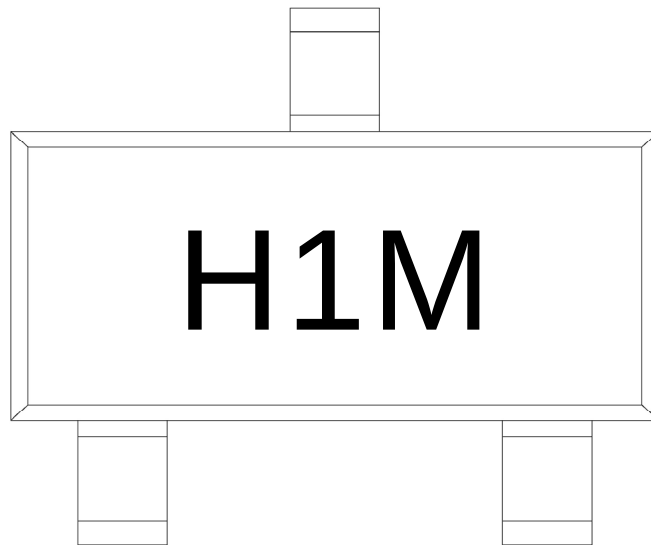
SOT-23

单位: mm



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

/ Marking Instructions



H

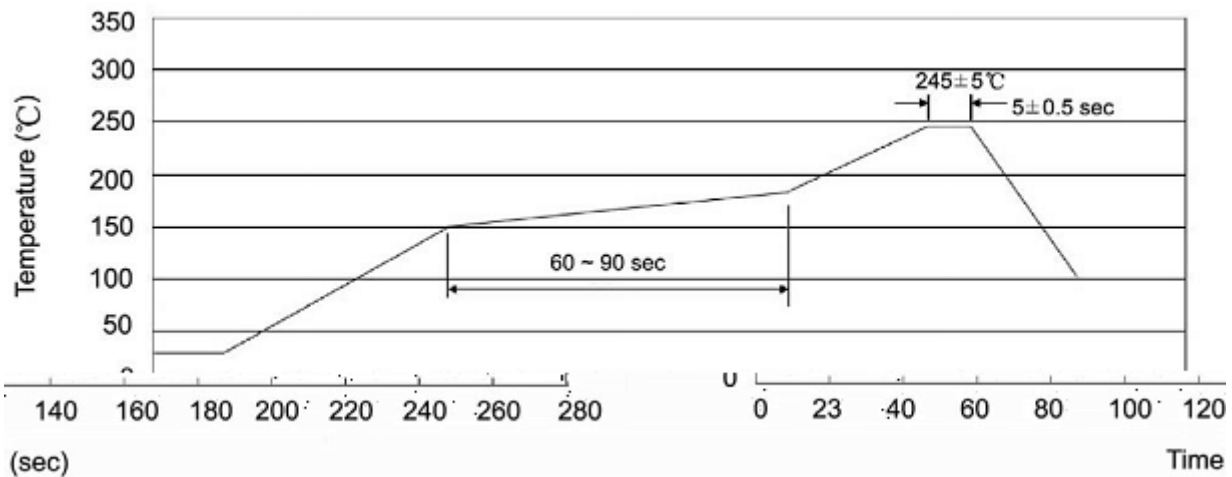
1M

Note:

H: Company Code.

1M: Product Type Code

1. Soldering Temperature Profile () / Whp shrdwxrh Prrioh irr IU Uhiow Vroghriq j+Pe-Frhh,



Note:

- | | | | | | |
|---|-----|-----|----|----------|---|
| 1 | 25 | 150 | 60 | 90sec; | 1.Preheating:25~150 , Time:60~90sec. |
| 2 | 245 | 5 | 5 | 0.5sec; | 2.Peak Temp.:245 5 , Duration:5 0.5sec. |
| 3 | | | 2 | 10 /sec. | 3. Cooling Speed: 2~10 /sec. |

4. Resistance to Soldering Heat Test Conditions

260 5 10 1 sec. Temp.:260 5 Time:10 1 sec

— / Packaging SPEC.

/ 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" x8	180×120×180	390×385×205

v / Notices