

/ Descriptions

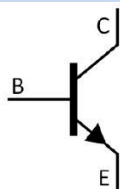
SOT-23

NPN

Silicon NPN transistor in a SOT-23 Plastic Package.

/ FeaturesGood linearity of f_T .**/ Applications**

High frequency, VHF band amplifier application.

/ Equivalent Circuit**/ Pinning**

PIN 1 Base PIN 2 Emitter PIN 3 Collector

/ h_{FE} Classifications & Marking

h_{FE} Range	20~200
Marking	HHH

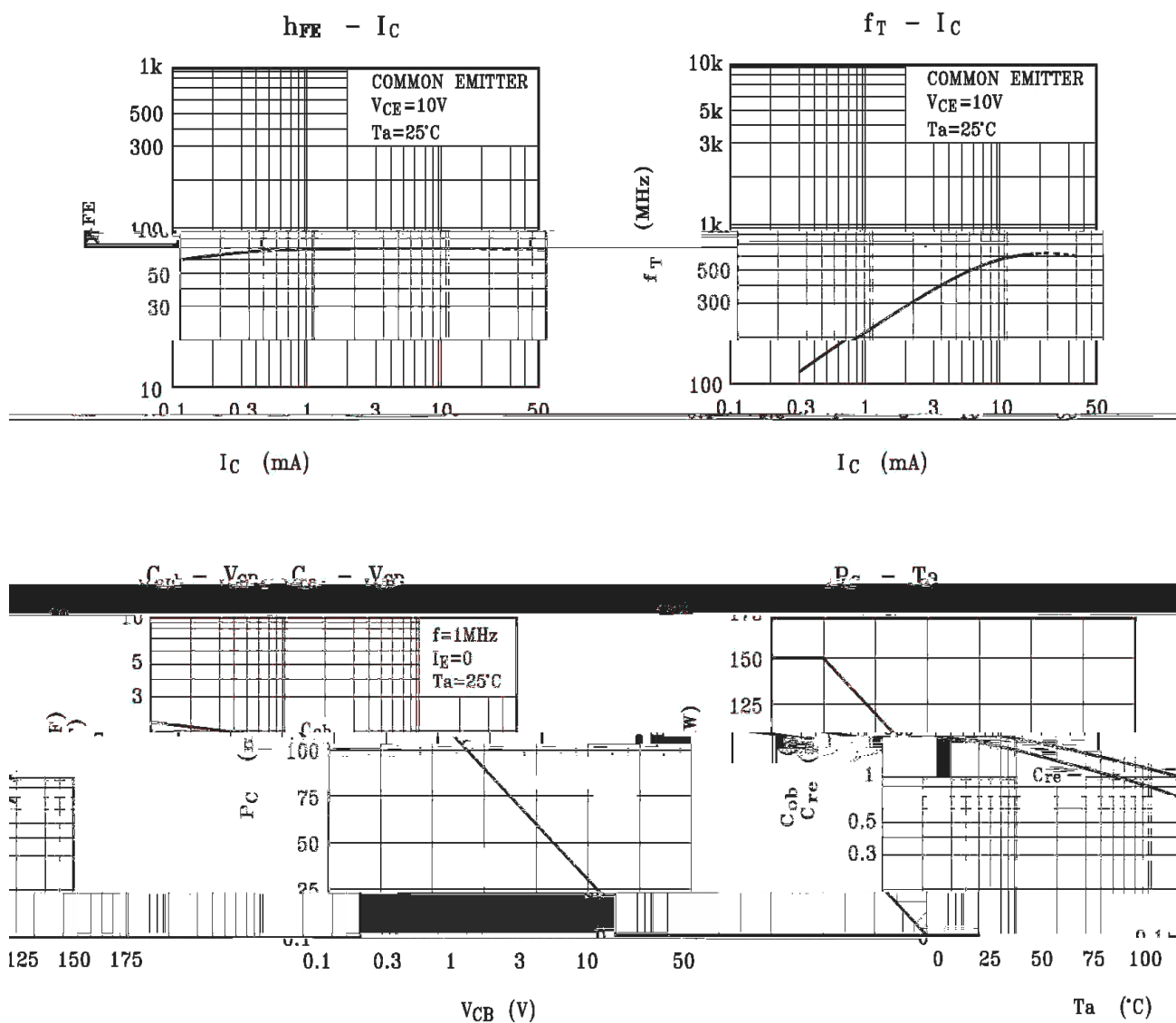
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	30	V
Collector to Emitter Voltage	V_{CEO}	25	V
Emitter to Base Voltage	V_{EBO}	4.0	V
Collector Current	I_C	50	mA
Base Current	I_B	25	mA
Collector Power Dissipation	P_C	150	mW
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C=10mA$	25			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=30V$ $I_E=0$			0.1	A
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=3.0V$ $I_C=0$			0.1	A
DC Current Gain	h_{FE}	$V_{CE}=10V$ $I_C=10mA$	20	70	200	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=15mA$ $I_B=1.5mA$			0.2	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=15mA$ $I_B=1.5mA$			1.5	V
Transition Frequency	f_T	$V_{CE}=10V$ $I_C=10mA$	250	600		MHz
Output Capacitance	C_C	$V_{CB}=10V$ $f=1.0MHz$ $I_E=0$		1.1	1.6	pF
Collector- Base Time Constant	$C_{c.rbb}$	$V_{CB}=10V$ $f=30MHz$ $I_E=1.0mA$			25	pS

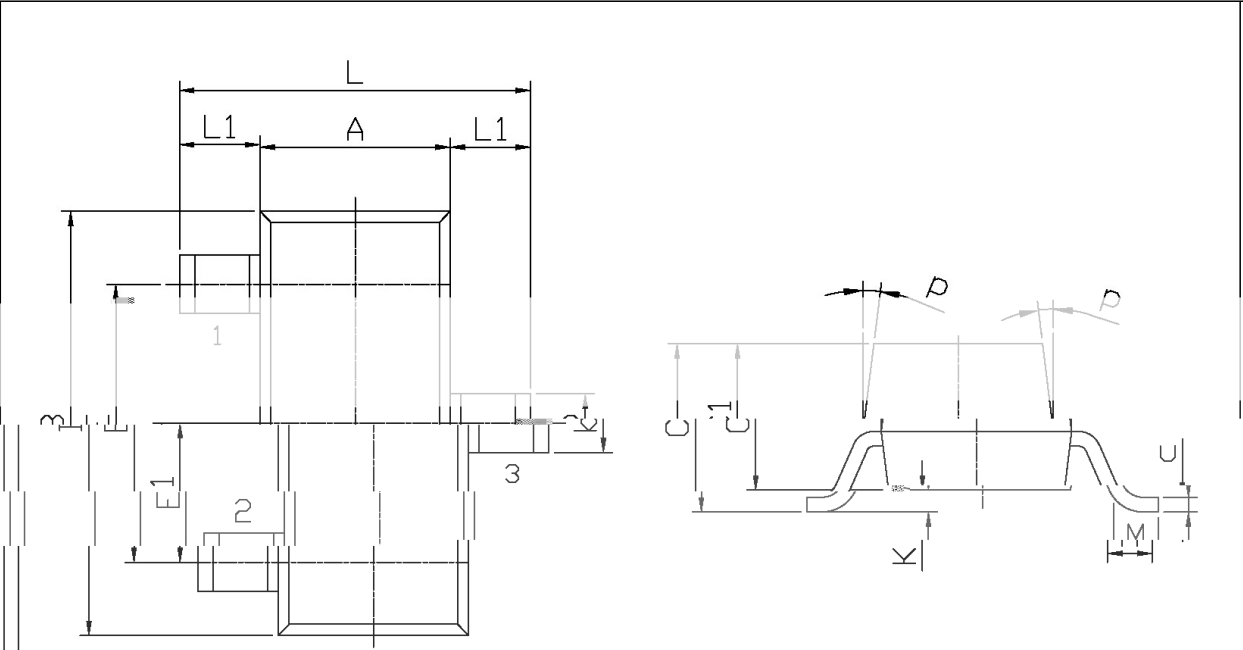
/ Electrical Characteristic Curve



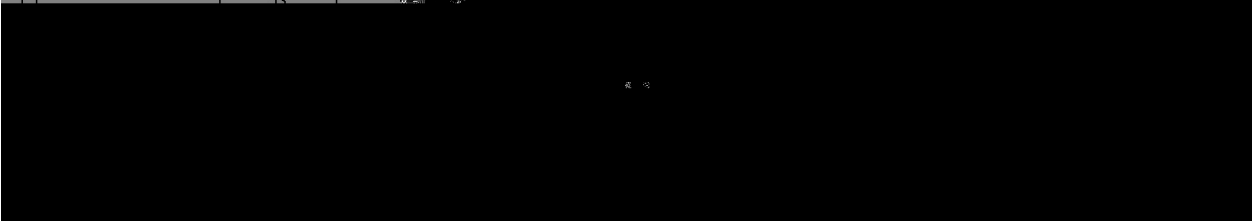
/ Package Dimensions

SOT-23

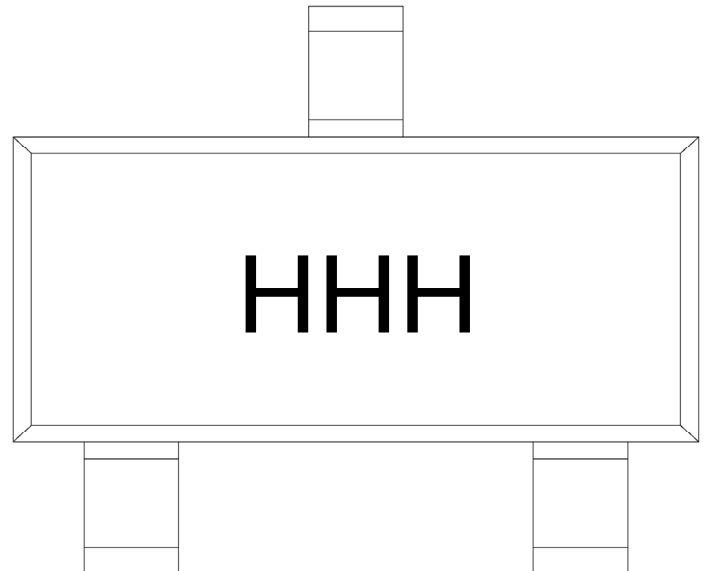
单位：mm



Symbol	Dimensions In. Millimeters		Symbol	Dimensions In. Millimeters	
	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
D	0.95	1.25	M	0.10	0.20



/ Marking Instructions



H

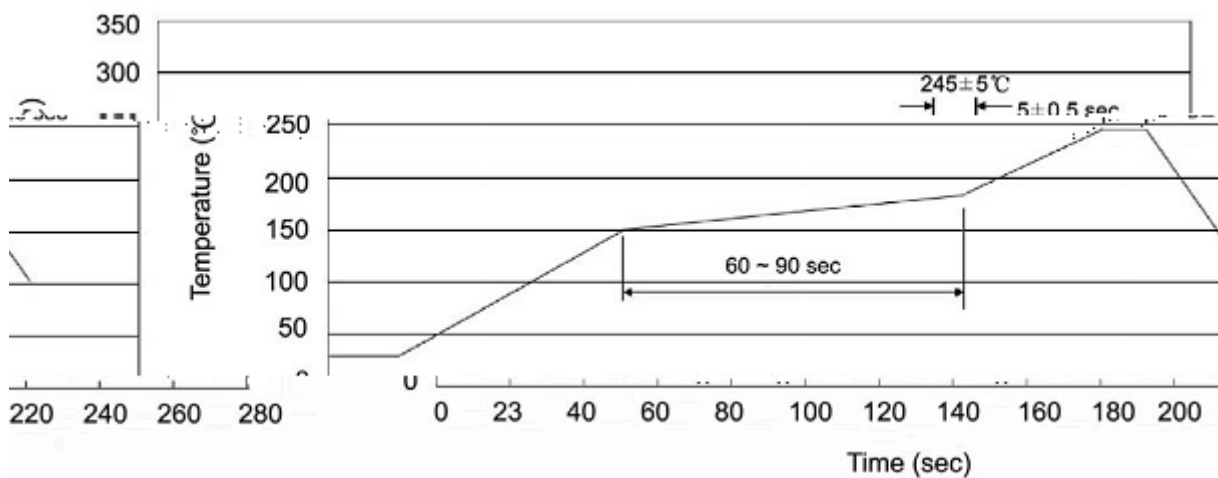
HH

Note:

H Company Code

HH Product Type

() / Temperature Profile for IR Reflow Soldering(Pb-Free)



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. |

/ 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