

/ Descriptions

Silicon NPN transistor in a SOT-23 Plastic Package.

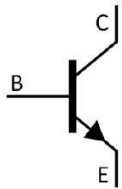
/ Features

High f_T , small NF.

/ Applications

High frequency amplifier applications.

/ Equivalent Circuit



/ Pinning



PIN 1 Base PIN 2 Emitter PIN 3 Collector

/ h_{FE} Classifications & Marking

h_{FE} Range	30 250
Marking	H7H

/ Absolute Maximum Ratings(Ta=25)

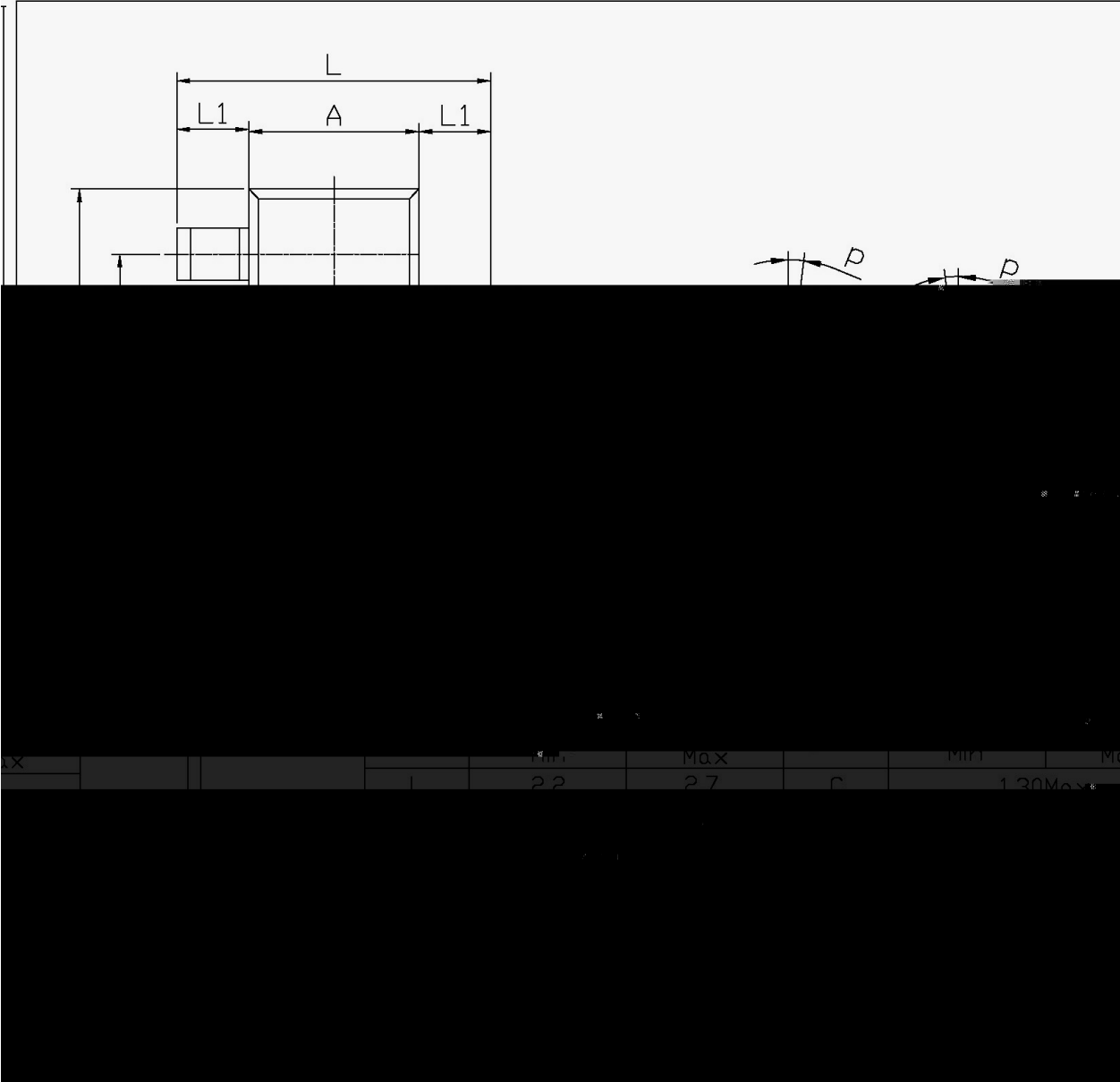
Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	30	V
Collector to Emitter Voltage	V_{CEO}	15	V
Emitter to Base Voltage	V_{EBO}	3.0	V
Collector Current	I_C	50	mA
Collector Power Dissipation	P_C	375	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	-55 150	°C

/ Electrical Characteristics(Ta=25)

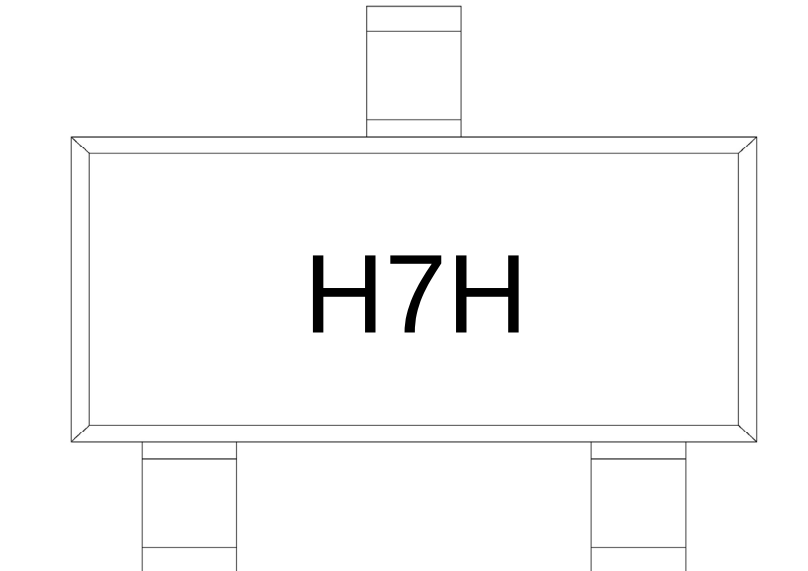
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C=3.0mA$ $I_B=0$	15			V
Collector to Base Breakdown Voltage	V_{CBO}	$I_C=1.0 A$ $I_E=0$	30			V
Emitter to Base Breakdown Voltage	V_{EBO}	$I_E=10 A$ $I_C=0$	3.0			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=15V$ $I_E=0$			0.02	A
DC Current Gain	h_{FE}	$V_{CE}=1.0V$ $I_C=3.0mA$	30		250	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=10mA$ $I_B=1.0mA$			0.4	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=10mA$ $I_B=1.0mA$			1.0	V
Transition Frequency	f_T	$V_{CE}=6.0V$ $I_C=5.0mA$ $f=100MHz$		1400		MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=10V$ $I_E=0$ $f=0.1\sim1.0MHz$			1.0	pF
Noise Figure	NF	$I_C=1.5mA$ $V_{CE}=6.0V$ $R_S=50$		4.5		dB
Common-Emitter Amplifier Power Gain	Gpe	$V_{CE}=6.0V$ $I_C=5.0mA$ $f=200MHz$		15		dB

/ Package Dimensions

SOT-23 单位: mm



/ Marking Instructions

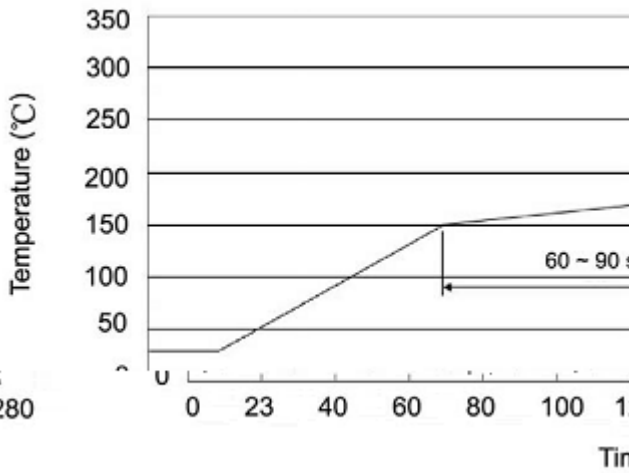


Note:

Company Code

Product Type

() / Temperature Profile



- 1 25 150 60 90sec;
- 2 245 5 5 0.5sec;
- 3 2 10 /sec.

/ Resistance to Soldering Heat

260 5 10 1 sec.

/ Packaging SPEC.

/ REEL

Package Type 封装形式	Units 包装数量			
	Units/Reel 只/卷盘	Reels/Inner Box 卷盘/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱
SOT-23	3,000	10	30,000	6