/ Descriptions

Silicon NPN transistor in a SOT-23 Plastic Package.

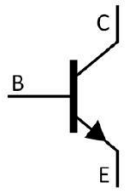
/ Features

High frequency.

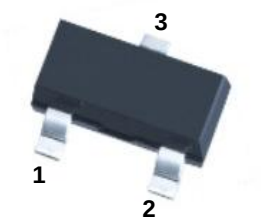
/ Applications

High frequency amplifier.

/ Equivalent Circuit



/ Pinning



PIN 1 Base PIN 2 Emitter PIN 3 Collector

/ h_{FE} Classifications & Marking

h_{FE} Classifications Symbol	R	O	Y
h_{FE} Range	40-80	60-120	90-180
Marking	HH5R	HH5O	HH5Y

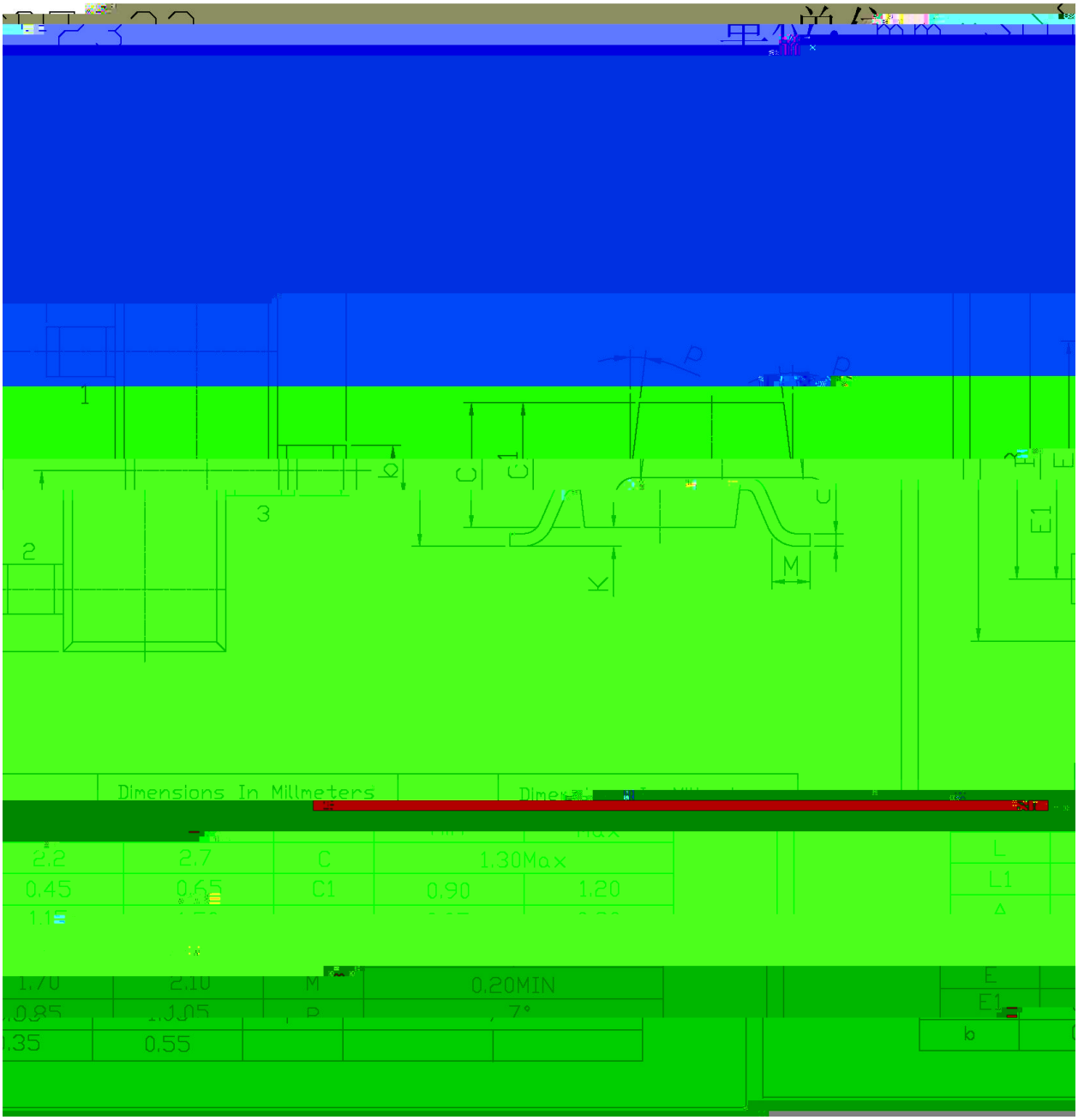
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	30	V
Collector to Emitter Voltage	V_{CEO}	20	V
Emitter to Base Voltage	V_{EBO}	4.0	V
Collector Current	I_C	20	mA
Collector Power Dissipation	P_C	150	mW
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

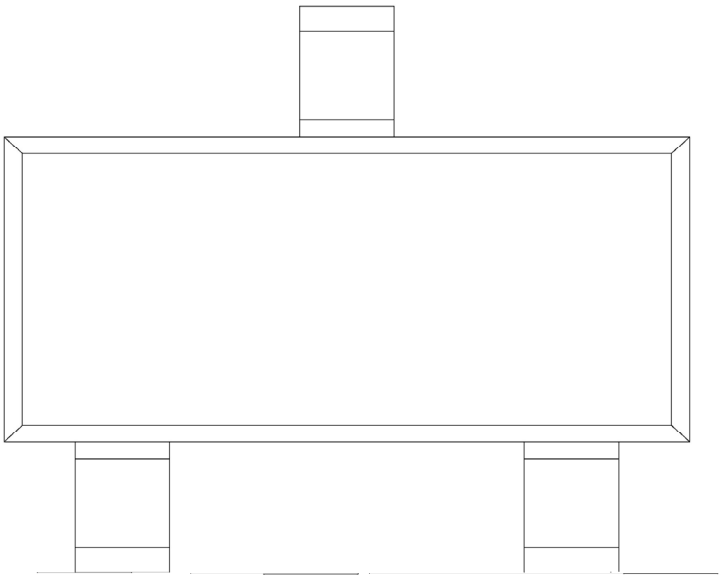
/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cut-Off Current	I_{CBO}	V_{CB}=30V I_E=0			0.1	A
DC Current Gain	h_{FE}	V_{CE}=6.0V I_C=1.0mA	40	90	180	
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=10mA I_B=1.0mA		0.1	0.3	V
Transition Frequency	f_T	I_C=1.0mA V_{CE}=6.0V	400	600		MHz
Collector Output Capacitance	C_{ob}	V_{CB}=6.0V I_E=0 f=1.0MHz		1.0		pF
Time Constant	$C_c.r_{bb'}$	V_{CB}=6.0V I_C=1.0mA f=31.9MHz		12		Ps
Noise Figure	NF	V_{CE}=6.0V I_C=1.0mA f=100MHz R_S=50		3.0		dB

/ Package Dimensions



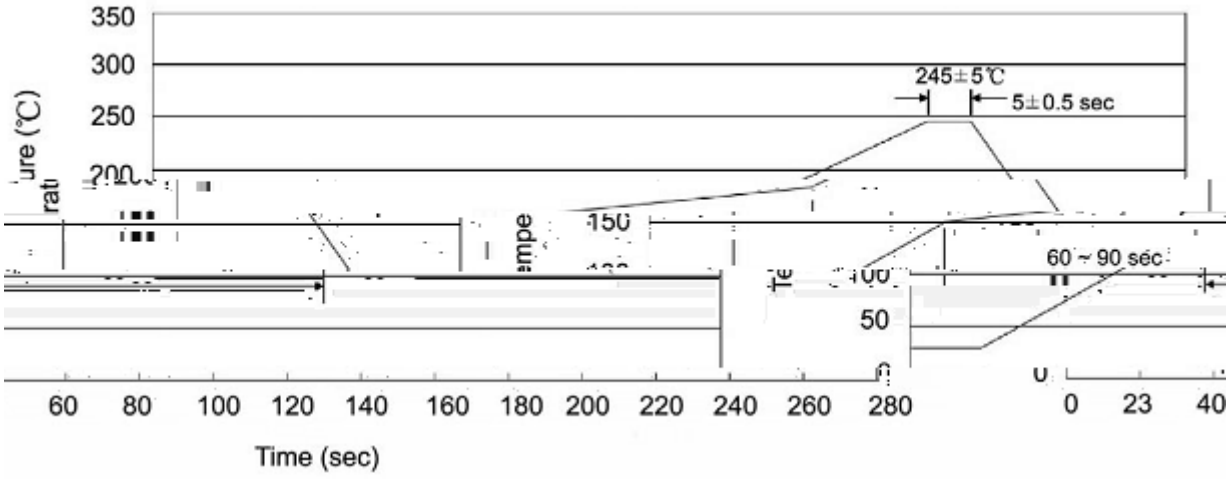
/ Marking Instructions



Note:

	Company Code
H5	Product Type Code
	h

( ) / 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

Units 包装数量 Dimension 包装尺寸 (unit: mm