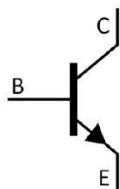


SOT-323 NPN Silicon NPN transistor in a SOT-323 Plastic Package.

High transition frequency, small collector output capacitance complementary pair.

Audio frequency amplifier applications.

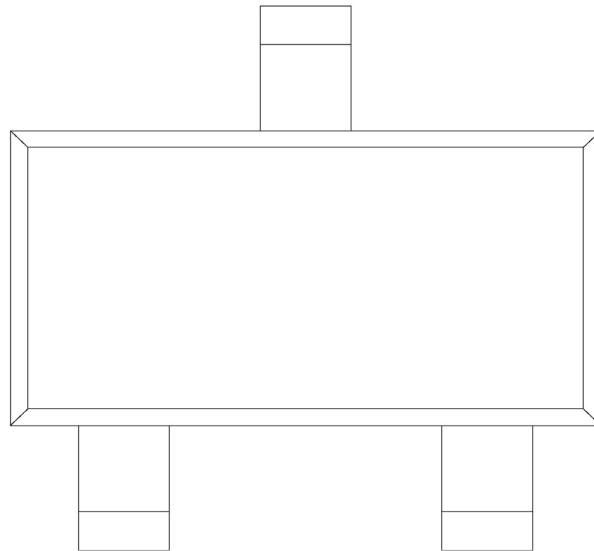


PIN1 Emitter PIN 2 Base PIN 3 Collector

h_{FE} Classifications Symbol	N	P	Q
h_{FE} Range	56 120	82 180	120 270
Marking	HAN	HNP	HNQ

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	40	V
Collector to Emitter Voltage	V_{CEO}	25	V
Emitter to Base Voltage	V_{EBO}	5.0	V
Collector Current - Continuous	I_C	50	mA
Collector Power Dissipation	P_C	200	mW
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	V_{CBO}	$I_C=50\mu A$	40			V
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C=1.0mA$	25			V
Emitter to Base Breakdown Voltage	V_{EBO}	$I_E=50\mu A$	5.0			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=24V$			0.5	μA
Emitter Base Cut-Off Current	I_{EBO}	$V_{EB}=3.0V$			0.5	μA
DC Current Gain	h_{FE}	$V_{CE}=6.0V$ $I_C=1.0mA$	56		270	
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=10mA$ $I_B=1.0mA$		0.1	0.3	V
Transition Frequency	f_T	$V_{CE}=6.0V$ $f=100MHz$ $I_C=1.0mA$	150	300		MHz
Collector output capacitance	C_{ob}	$V_{CB}=6.0V$ $f=1.0MHz$ $I_E=0$		1.3	2.2	pF



H

A

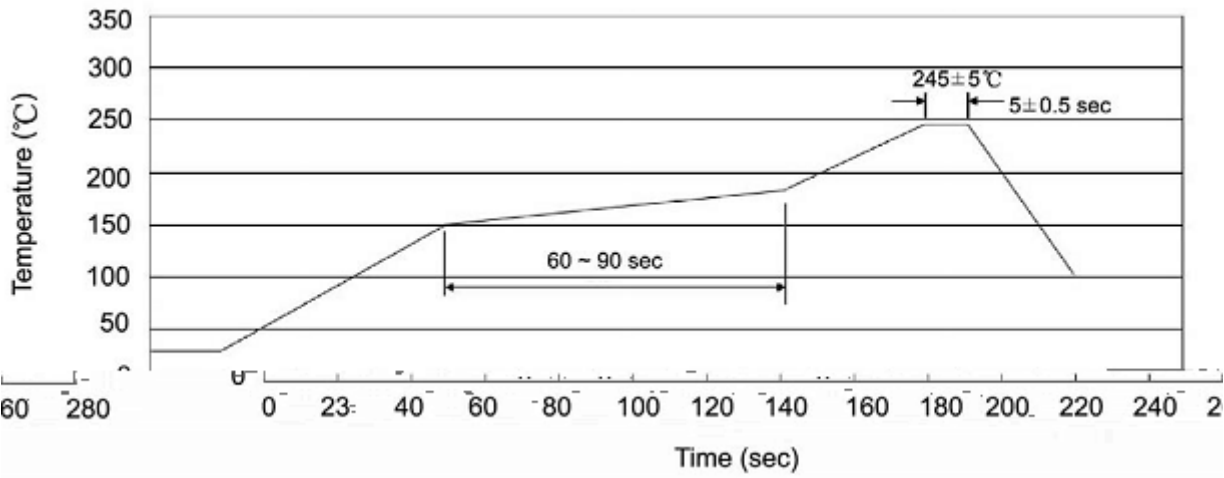
N h_{FE}

Note:

H: Company Code.

A: Product Type.

N h_{FE} h



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.

260±5

10±1 sec.

Temp.:260±5

Time:10±1 sec

/ REEL

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	只 卷盘	卷盘 盒	只 盒	盒 箱	只 箱		盒	箱