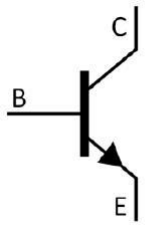
SOT-23 NPN Silicon NPN transistor in a SOT-23 Plastic Package.

High Current Gain.

General purpose amplifier.



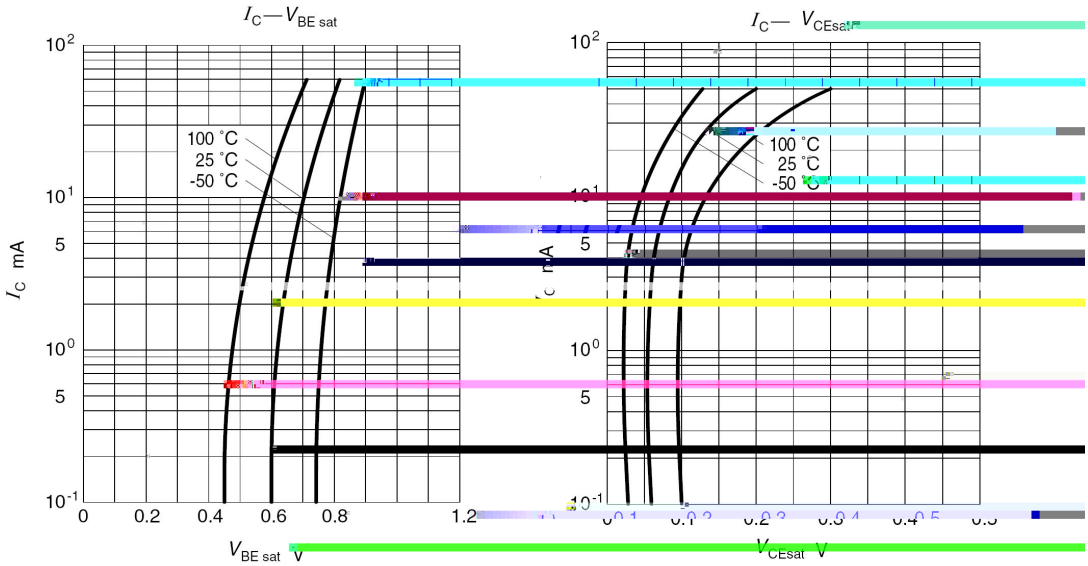


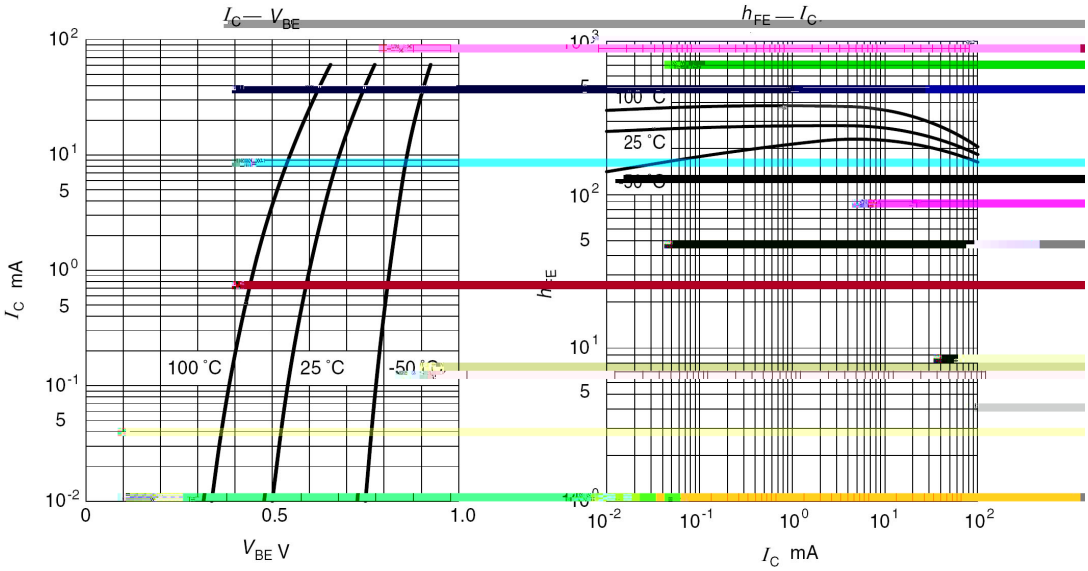
PIN1 Base PIN 2 Emitter PIN 3 Collector

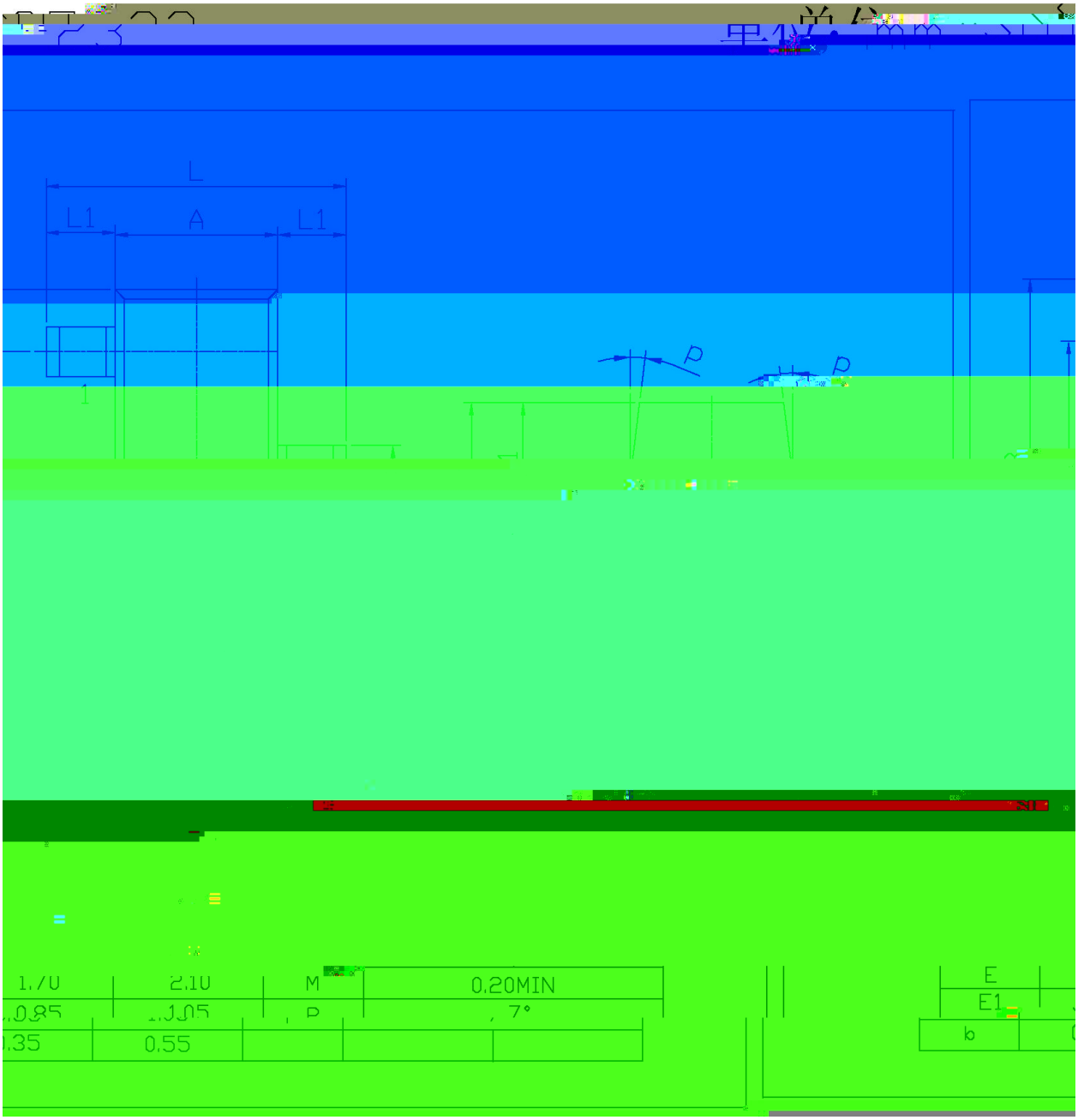
h_{FE} Range	380 630
Marking	HAK

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	45	V
Collector to Emitter Voltage	V_{CEO}	45	V
Emitter to Base Voltage	V_{EBO}	5.0	V
Collector Current(DC)	I_C	200	mA
Collector Power Dissipation	P_C	350	mW
Storage Temperature Range	T_{stg}	-55 150	

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-Emitter Breakdown Voltage	V(BR)CEO					V


I_C — $V_{BE\ sat}$
I_C — V_{CEsat}
100 °C
25 °C
-50 °C
I_C mA
$V_{BE\ sat}$ V
V_{CEsat} V


I_C — V_{BE}
h_{FE} — I_C
100 °C
25 °C
-50 °C
I_C mA
V_{BE} V
h_{FE}
I_C mA


L
L1
A
L1
P
P
1.70
2.10
M
0.20MIN
7°
0.35
0.55
E
E1
b



H

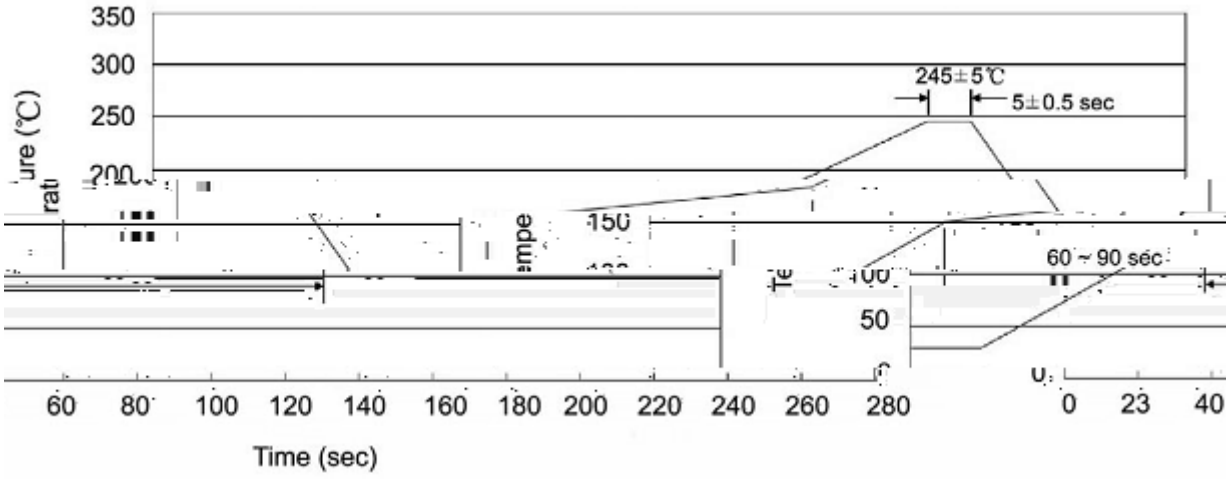
AK

Note:

H: Company Code

AK: Product Type Code

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.

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

/ REEL

Package Type	Units					Dimension		(unit mm^3)
	Units/Reel /	Reels/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Reel	Inner Box	Outer Box
SOT-23	3,000	10	30,000	6	180,000	7 ×8	180×120×180	390×385×205