/ Descriptions

Silicon NPN transistor in a SOT-23 Plastic Package.

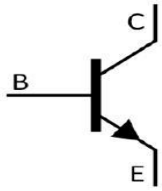
/ Features

High I_C ,complementary pair with BC807.

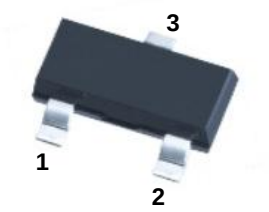
/ Applications

Purpose: General power amplifier and switching application.

/ Equivalent Circuit



/ Pinning



PIN1 Base PIN 2 Emitter PIN 3 Collector

/ h_{FE} Classifications & Marking

h_{FE} Classifications Symbol	16	25	40
h_{FE} Range	100 250	160 400	250 600
Marking	H6A	H6B	H6C

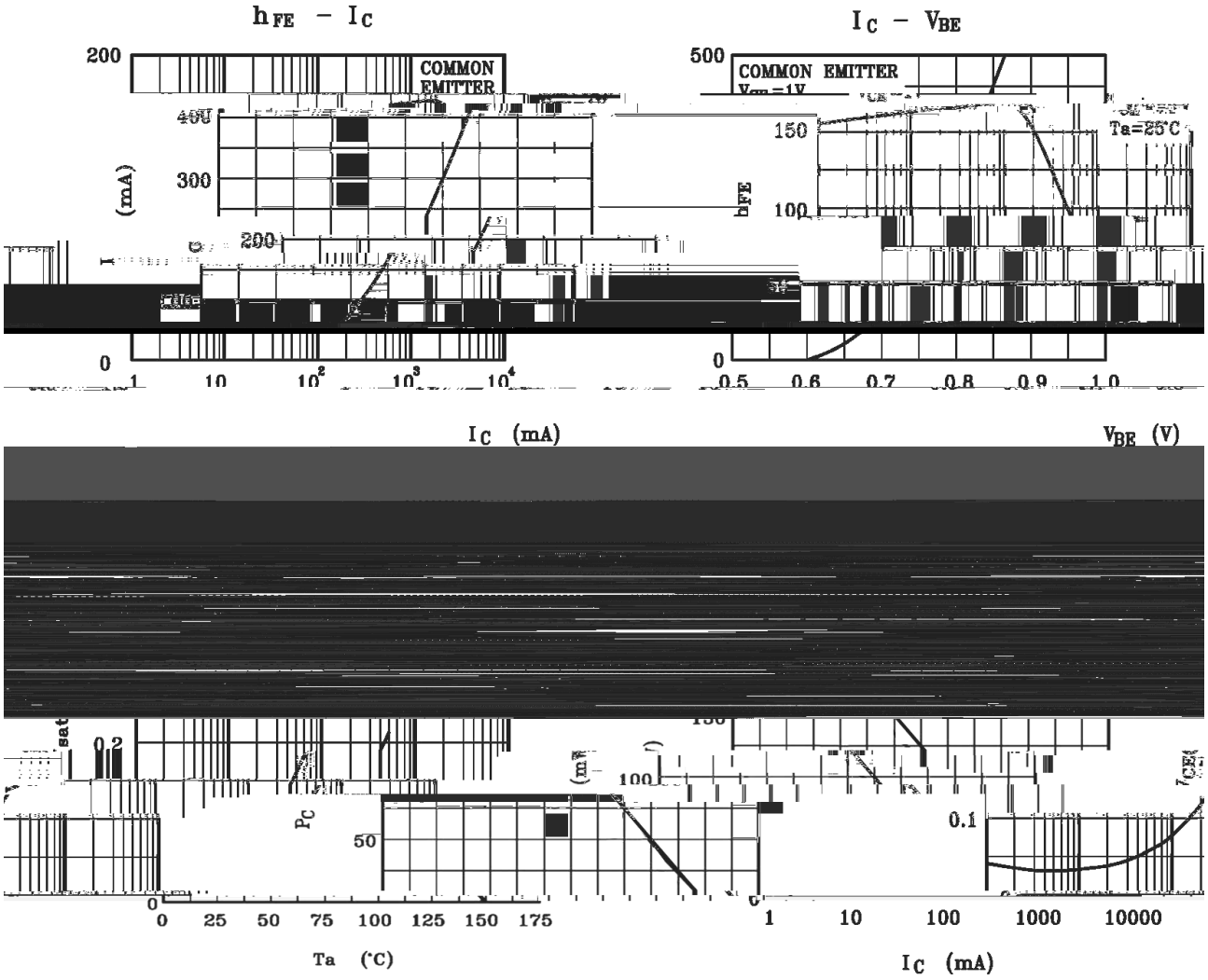
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	50	V
Collector to Emitter Voltage	V_{CEO}	45	V
Emitter to Base Voltage	V_{EBO}	5.0	V
Collector Current - Continuous	I_C	500	mA
Collector Current - peak collector current	I_{CM}	1.0	A
Collector Power Dissipation	P_C	250	mW
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

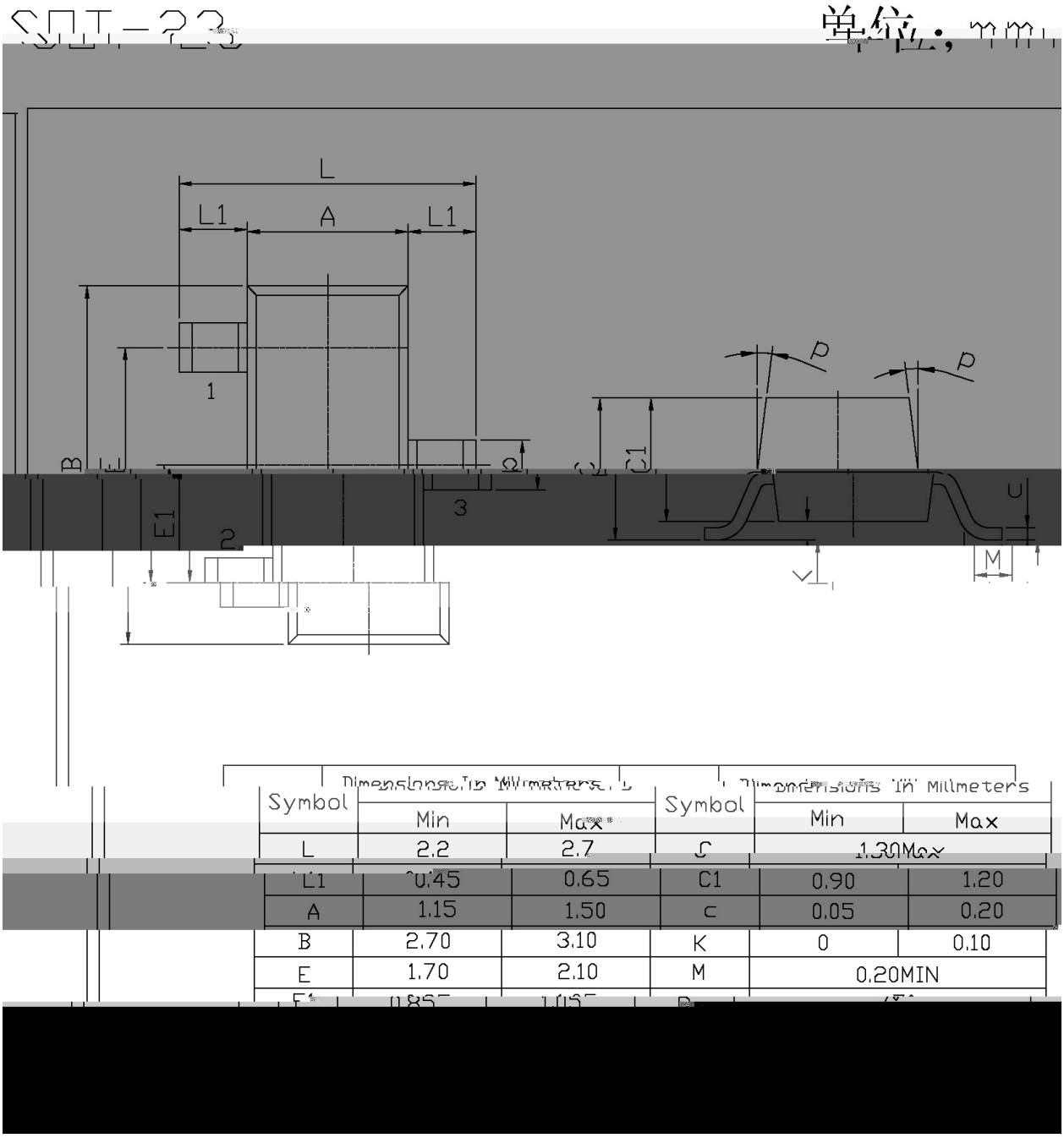
/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	V_{CBO}	I_C=10 A I_E=0	50			V
Collector to Emitter Breakdown Voltage	V_{CEO}	I_C=10mA I_B=0	45			V
Emitter to Base Breakdown Voltage	V_{EBO}	I_E=10μA I_c=0	5.0			V
Collector Cut-Off Current	I_{CBO}	V_{CB}=20V I_E=0			0.1	μA
Emitter Cut-Off Current	I_{EBO}	V_{EB}=5.0V I_E=0			0.1	μA
DC Current Gain	$h_{FE(1)}$	V_{CE}=1.0V I_C=100mA	100		600	
	$h_{FE(2)}$	V_{CE}=1.0V I_C=500mA	40			
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=500mA I_B=50mA			0.7	V
Base to Emitter Voltage	V_{BE}	V_{CE}=1.0V I_C=500mA			1.2	V
Transition Frequency	f_T	V_{CE}=5.0V I_C=10mA	100			MHz
Collector Output Capacitance	C_{ob}	V_{CB}=10V I_E=0 f=1.0MHz		5.0		pF

/ Electrical Characteristic Curve

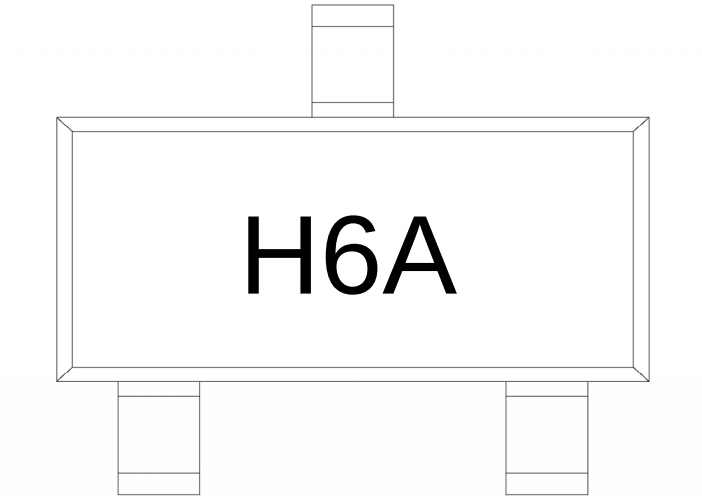


/ Package Dimensions



Symbol	Min	Max	Symbol	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
B	2.70	3.10	K	0	0.10
E	1.70	2.10	M	0.20MIN	

/ Marking Instructions

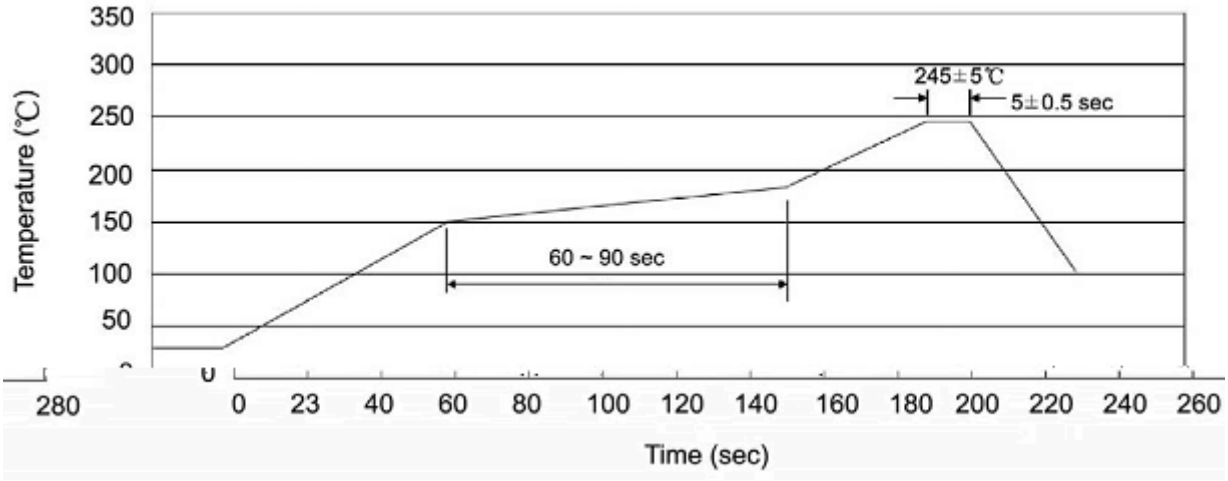


Note:

H: Company Code

6A: 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.

/ 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 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

/ Notices