

/ Descriptions

Silicon PNP transistor in a SOT-23 Plastic Package.

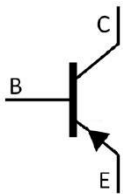
/ Features

Complementary pair with 2SD601A.

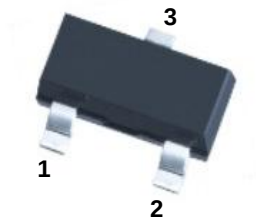
/ Applications

General power amplifier applications.

/ Equivalent Circuit



/ Pinning



PIN1 Base PIN 2 Emitter PIN 3 Collector

/ h_{FE} Classifications & Marking

h_{FE} Classifications Symbol	Q	R	S
h_{FE} Range	160~260	210~340	290~460
Marking	H1BQ	H1BR	H1BS

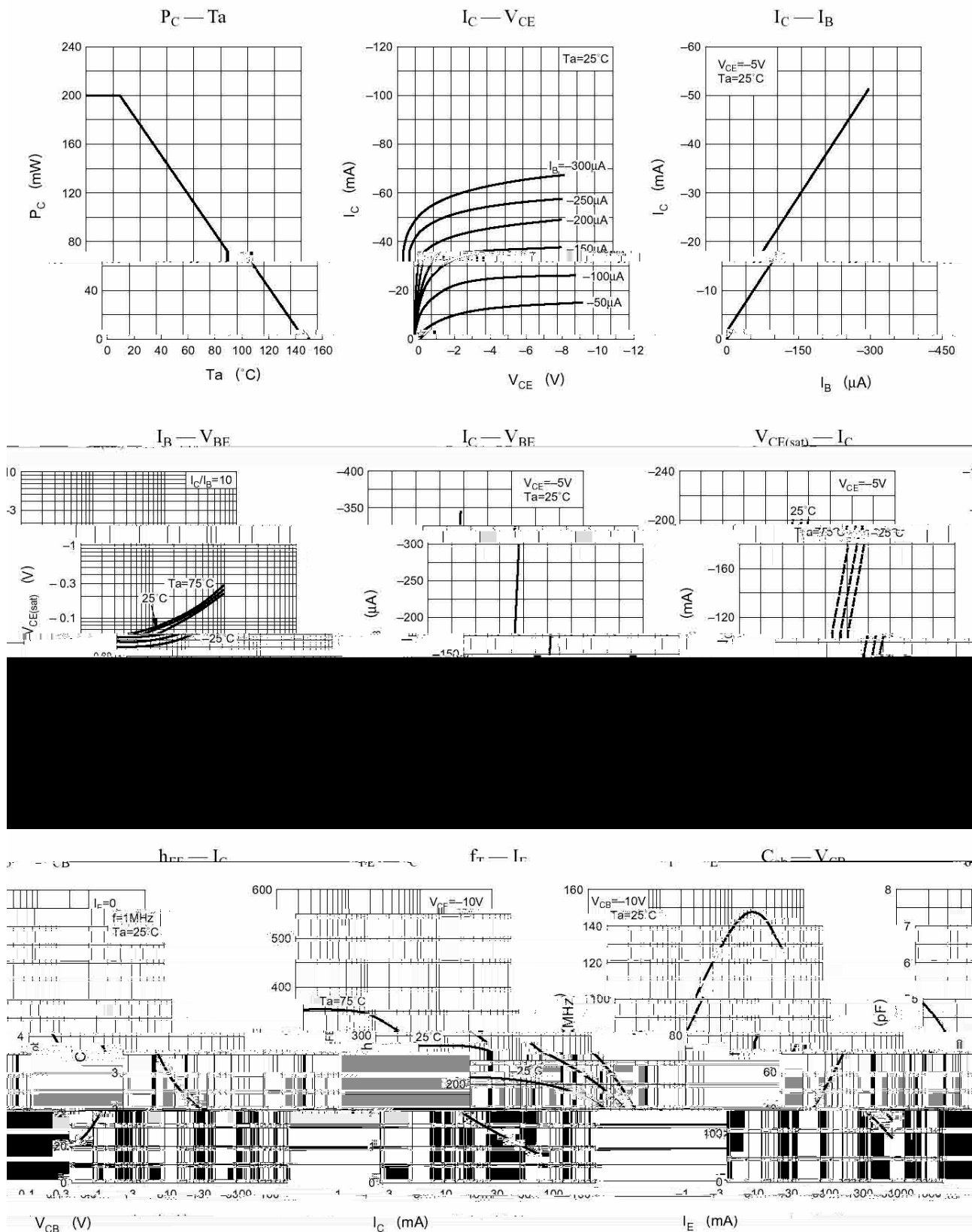
/ Absolute Maximum Ratings(Ta=25)

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}	-7.0	V
Collector Current	I_C	-100	mA
Collector Current(pulse)	I_{CP}	-200	mA
Collector Power Dissipation	P_C	200	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}	$I_C=-10\text{ A}$ $I_E=0$	-45			V
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C=-2\text{mA}$ $I_B=0$	-45			V
Emitter to Base Breakdown Voltage	V_{EBO}	$I_E=-10\text{ A}$ $I_C=0$	-7			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=-20\text{V}$ $I_E=0$			-0.1	A
Emitter Base Cut-Off Current	I_{EBO}	$V_{CE}=-10\text{V}$ $I_B=0$			-100	A
DC Current Gain	h_{FE}	$V_{CE}=-10\text{V}$ $I_C=-2\text{mA}$	160		460	
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=-100\text{mA}$ $I_B=-10\text{mA}$		-0.3	-0.5	V
Transition Frequency	f_T	$V_{CB}=-10\text{V}$ $I_C=-1\text{mA}$ $f=200\text{MHz}$		80		MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=-10\text{V}$ $I_E=0$ $f=1\text{MHz}$		2.7		pF

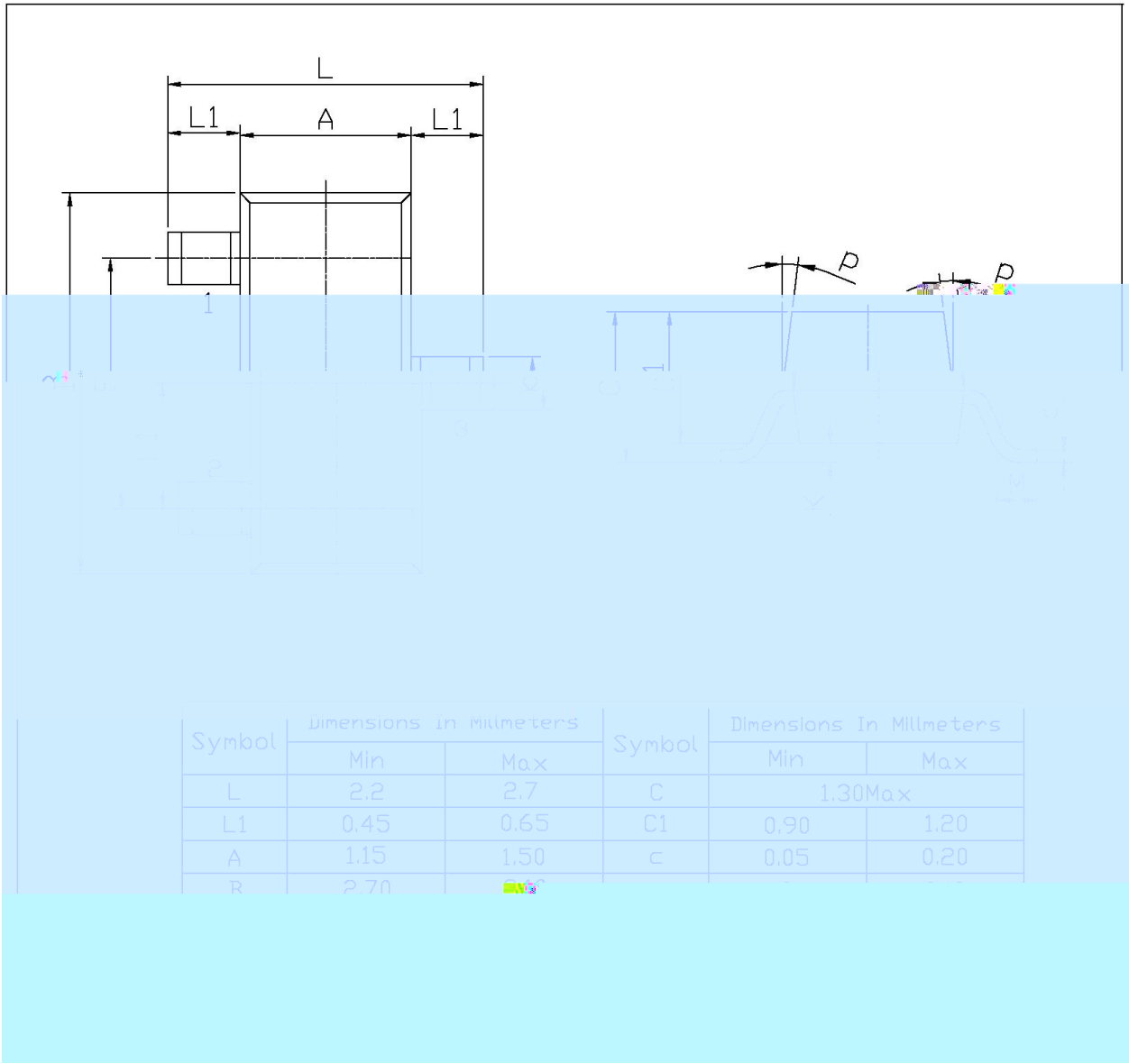
/ Electrical Characteristic Curve



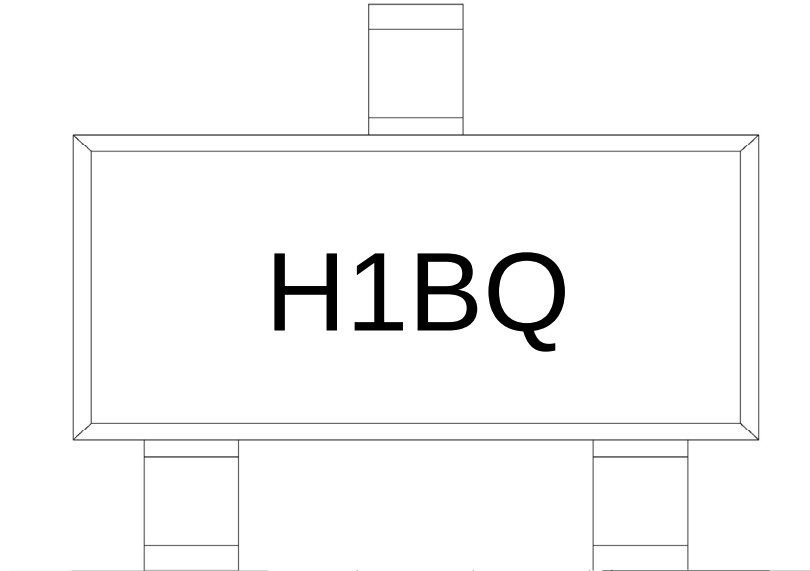
/ Package Dimensions

SOT-23

单位; mm



/ Marking Instructions



h_{FE}

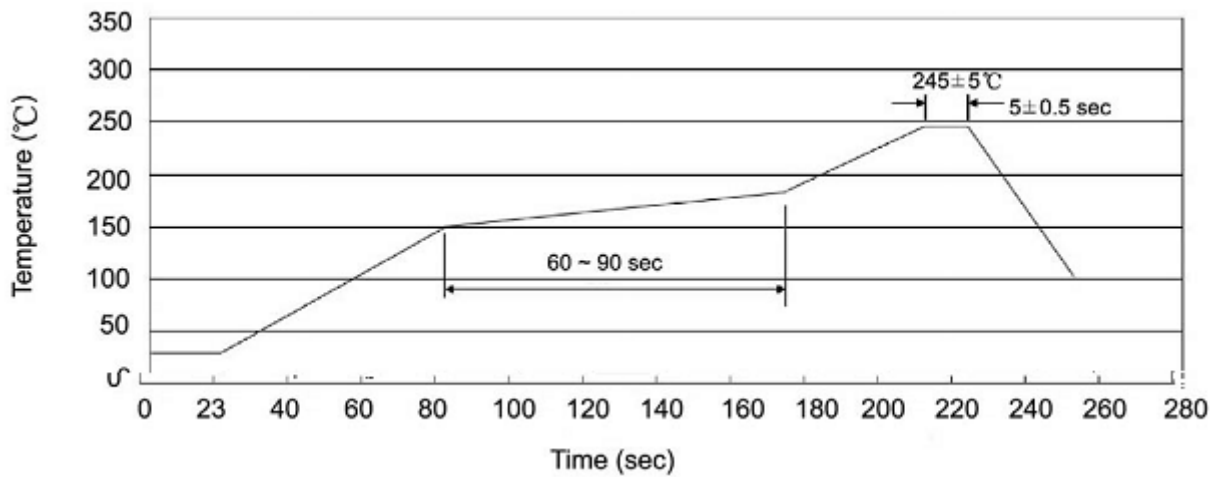
Note:

H: Company Code

1B: Product Type Code

Q: h_{FE} Classifications Symbol 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)		
	Units/Reel 只/卷盘	Reels/Inner Box 卷盘/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Reel	Inner Box 盒	Outer Box 箱
SOT-23	3,000	10	30,000	6	180,000	7 ×8	180×120×180	390×385×205

/ Notices