

BC807

Rev.F Apr.-2017

/ Descriptions

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

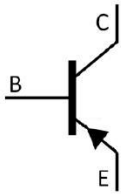
/ Features

I_C BC817
High I_C , complementary pair with BC817.

/ Applications

General power amplifier and switching applications

/ 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	H5A	H5B	H5C

/ 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
Peak Collector Current - Continuous	I_{CM}	-1.0	A
Power Dissipation	P_C	250	mW
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55~150	

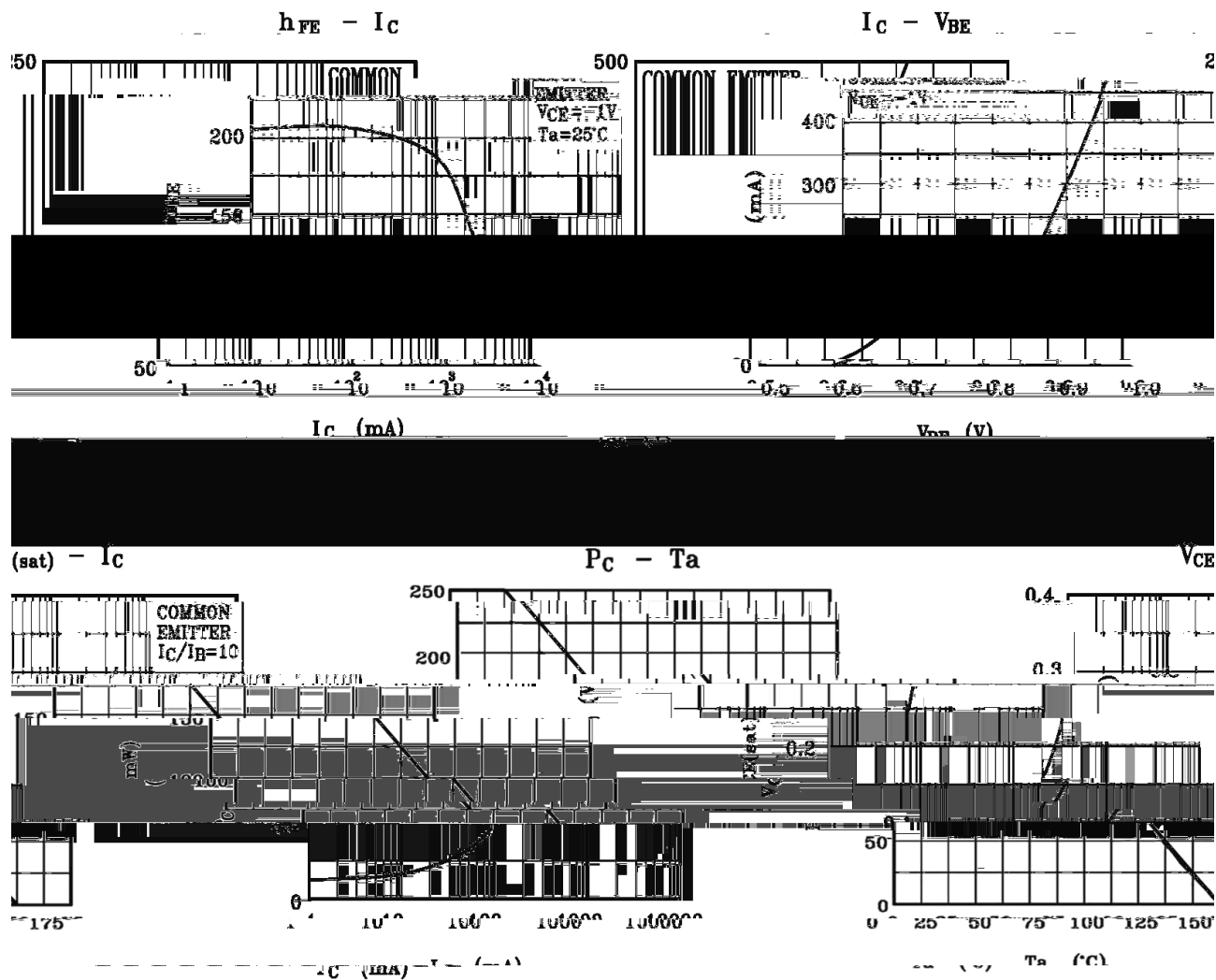
/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	V_{CBO}	$I_C = -10\mu A$ $I_E = 0$	-50			V
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C = -10mA^*$ $I_B = 0$	-45			V
Emitter to Base Breakdown Voltage	V_{EBO}	$I_E = -10\mu A$ $I_C = 0$	-5.0			V
Collector Cut-Off Current	I_{CBO}	$V_{CB} = -20V$ $I_E = 0$			-0.1	μA
Emitter Cut-Off Current	I_{EBO}	$V_{EB} = -5.0V$ $I_C = 0$			-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	$V_{CE} = -5V$ $I_C = -10mA$	80			MHz
Collector Output Capacitance	C_{ob}	$V_{CB} = -10V$ $f = 1.0MHz$ $I_E = 0$		9.0		pF

* $\leq 300\mu S$ $\leq 2.0\%$

*pulse test: pulse width $\leq 300\mu S$, duty cycle $\leq 2.0\%$.

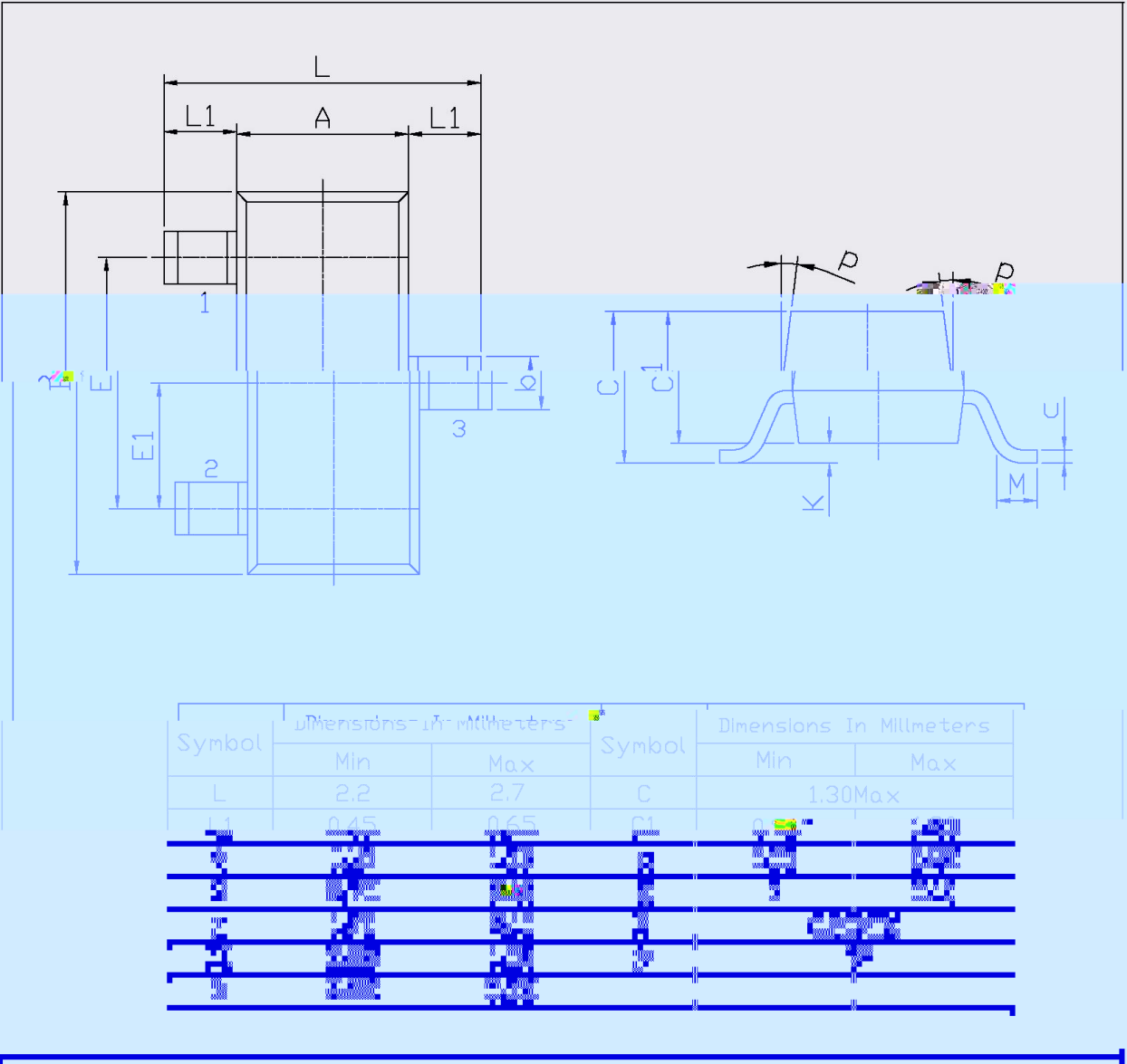
/ Electrical Characteristic Curve



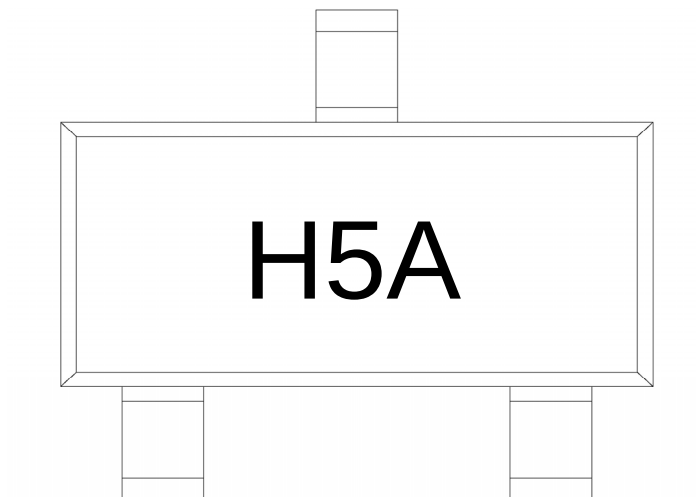
/ Package Dimensions

SOT-23

单位: mm



/ Marking Instructions



H

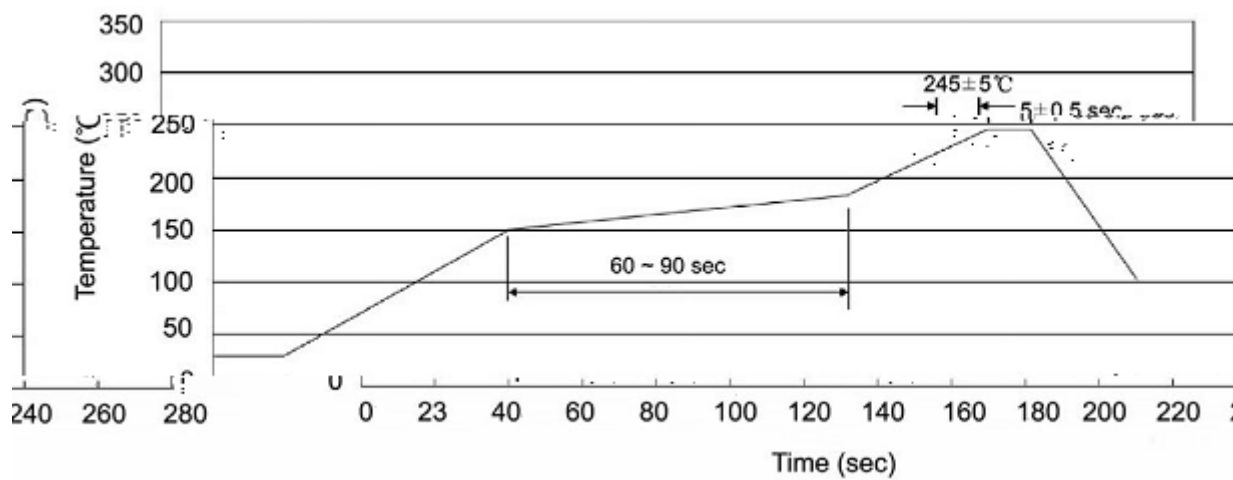
5A

Note:

H: Company Code.

5A: Product Type Code

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Note:

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|---|----|-------------|----|------------------|---|
| 1 | 25 | 150 | 60 | 90sec; | 1. Preheating: 25~150 , Time: 60~90sec. |
| 2 | | 245 ± 5 | | 5 ± 0.5 sec; | 2. Peak Temp.: 245 ± 5 , Duration: 5 ± 0.5 sec. |
| 3 | | | 2 | 10 /sec. | 3. Cooling Speed: 2~10 /sec. |

245 ± 5 °C Resistance to Soldering Heat Test Conditions