

/ Descriptions

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

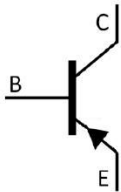
/ Features

Low collector to emitter saturation voltage, excellent linearity of DC forward current Gain, high collector current, high gain band width product.

/ Applications

Small type motor drive, relay drive, power supply.

/ Equivalent Circuit



/ Pinning



PIN1 Base PIN 2 Emitter PIN 3 Collector

/ h_{FE} Classifications & Marking

h_{FE} Classifications Symbol	E	F	G
h_{FE} Range	150 300	250 500	400 800
Marking	HAE	HAF	HAG

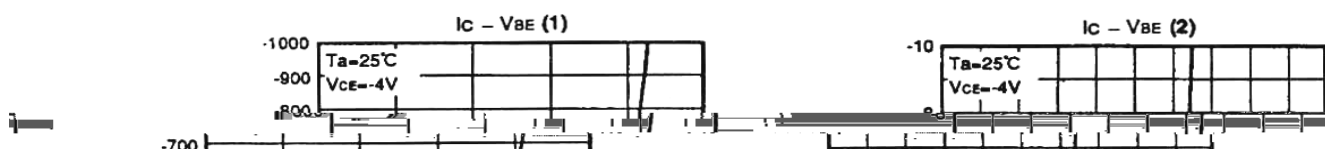
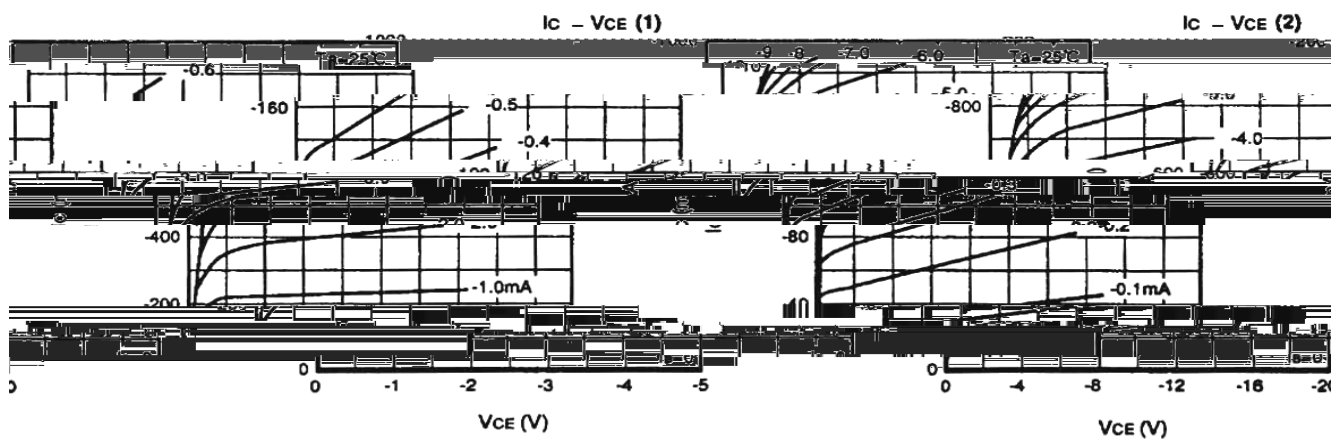
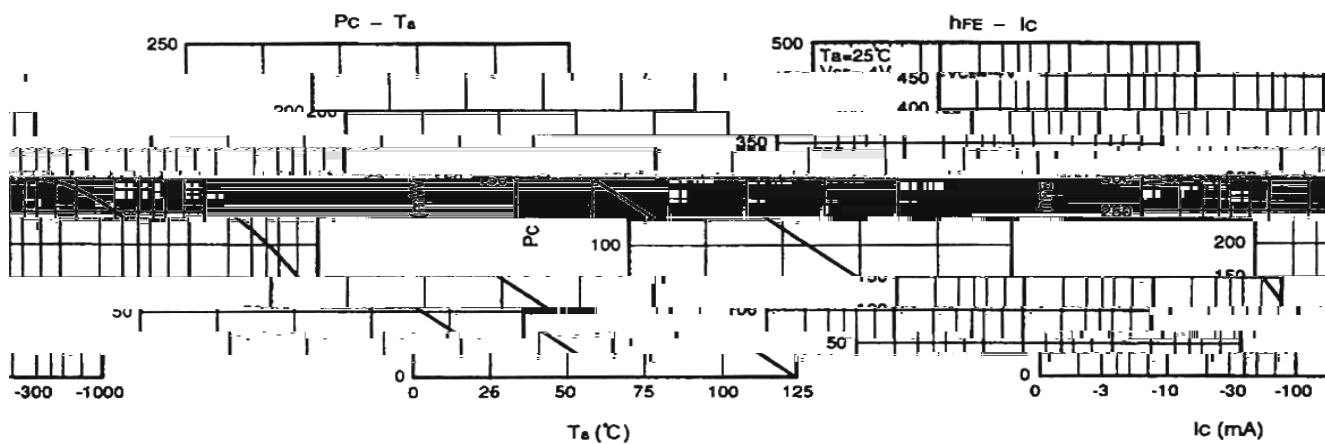
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	-25	V
Collector to Emitter Voltage	V_{CEO}	-20	V
Emitter to Base Voltage	V_{EBO}	-4.0	V
Collector Current	I_C	-700	mA
Peak Current	I_{CM}	-1.0	A
Collector Power Dissipation	P_C	150	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-Base Breakdown Voltage	V_{CBO}	$I_C=-10\text{ A}$ $I_E=0$	-25			V
Collector-Emitter Breakdown Voltage	V_{CEO}	$I_C=-100\text{ A}$ $R_{BE}=\text{ }$	-20			V
Emitter-Base Breakdown Voltage	V_{EBO}	$I_E=-10\text{ A}$ $I_C=0$	-4.0			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=-25V$ $I_E=0$			-1.0	A
Emitter Base Cut-Off Current	I_{EBO}	$V_{EB}=-2.0V$ $I_C=0$			-1.0	A
DC Current Gain	h_{FE}	$V_{CE}=-4.0V$ $I_C=-100mA$	150		800	
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=-500mA$ $I_B=-25mA$		-0.2	-0.5	V
Transition Frequency	f_T	$V_{CE}=-6.0V$ $I_E=10mA$		180		MHz

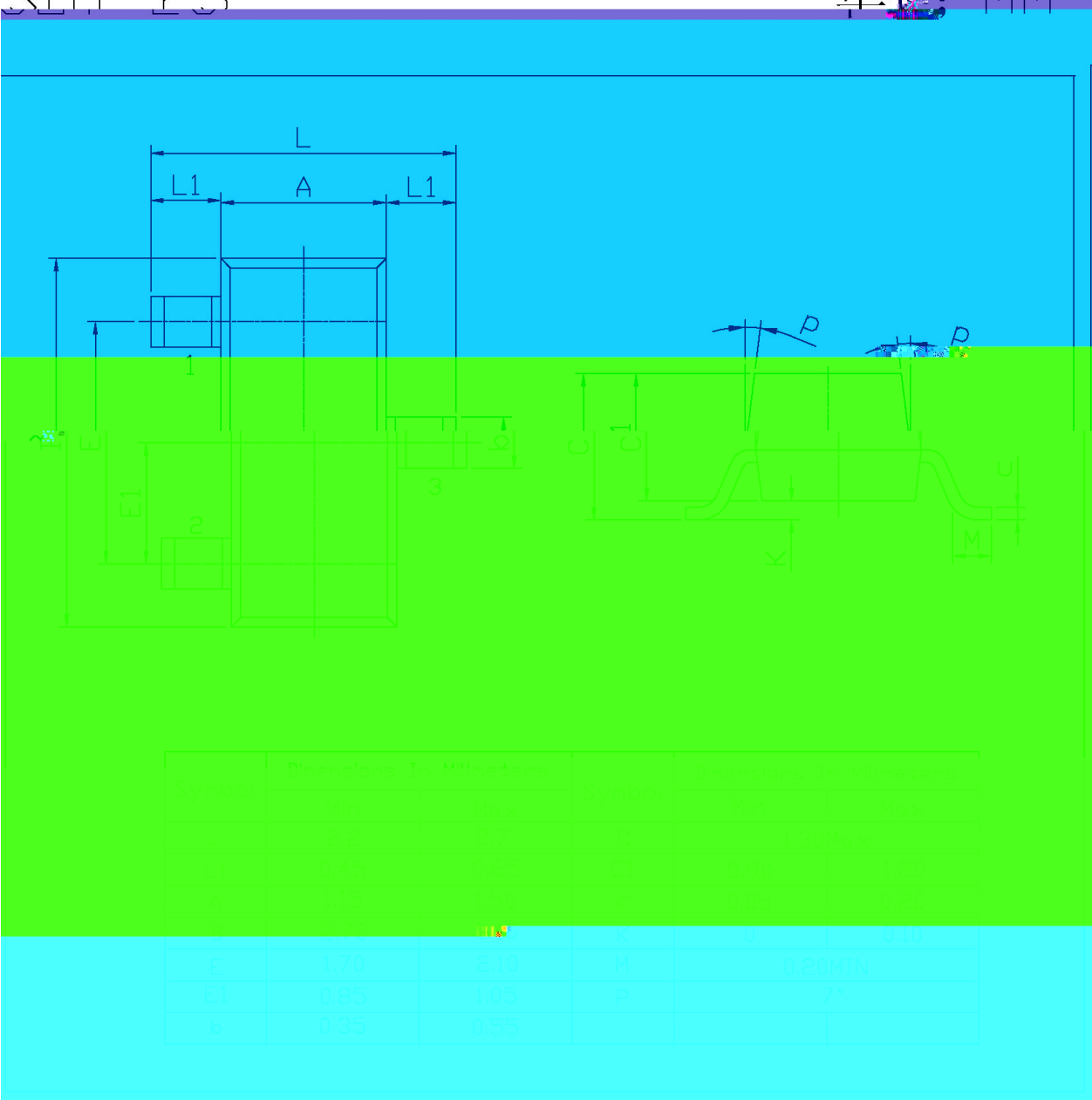
/ Electrical Characteristic Curve



/ Package Dimensions

SOT-23

单位: mm



/ Marking Instructions



H

A

E: h_{FE}

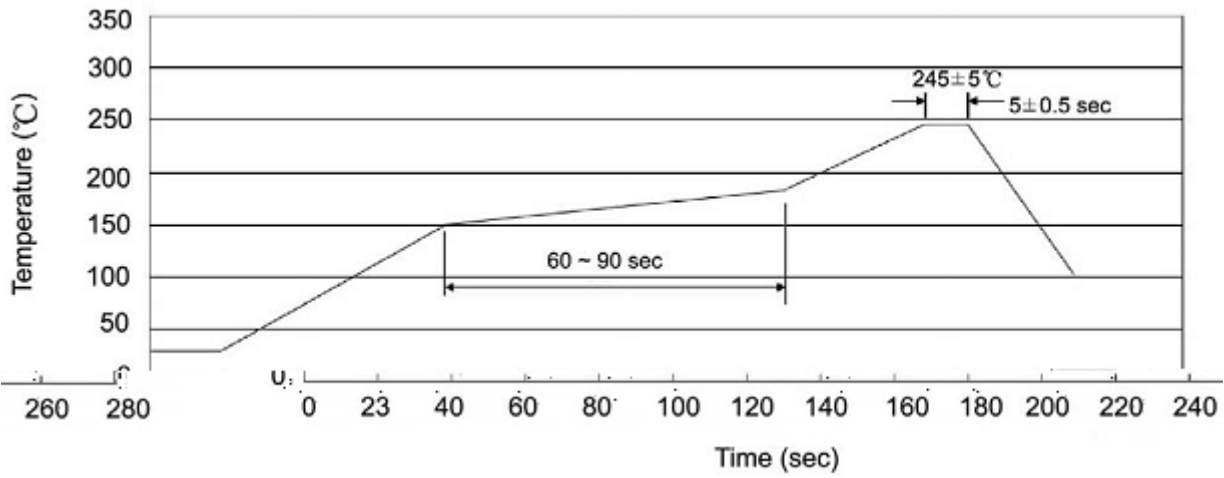
Note:

H: Company Code.

A: Product Type Code

E: h_{FE} Classifications Symbol Code

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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	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

/ Notices