

/ Descriptions

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

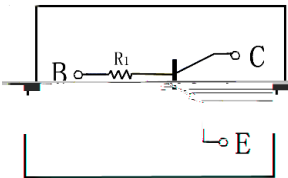
/ Features

With built-in bias resistors, simplify circuit design, reduce a quantity of parts and manufacturing process. HF Product.

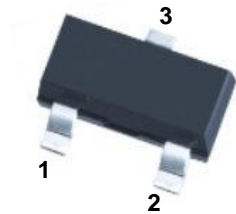
/ Applications

Switching, inverter circuit, interface circuit and driver circuit applications.

/ Equivalent Circuit



/ Pinning



PIN 1 Base PIN 2 Emitter PIN 3 Collector

/ h_{FE} Classifications & Marking

Marking	H03
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/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	50	V
Collector-Emitter Voltage	V_{CEO}	50	V
Emitter-Base Voltage	V_{EBO}	5.0	V
Collector Current	I_C	100	mA
Power Dissipation	P_C	200	mW
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55~150	

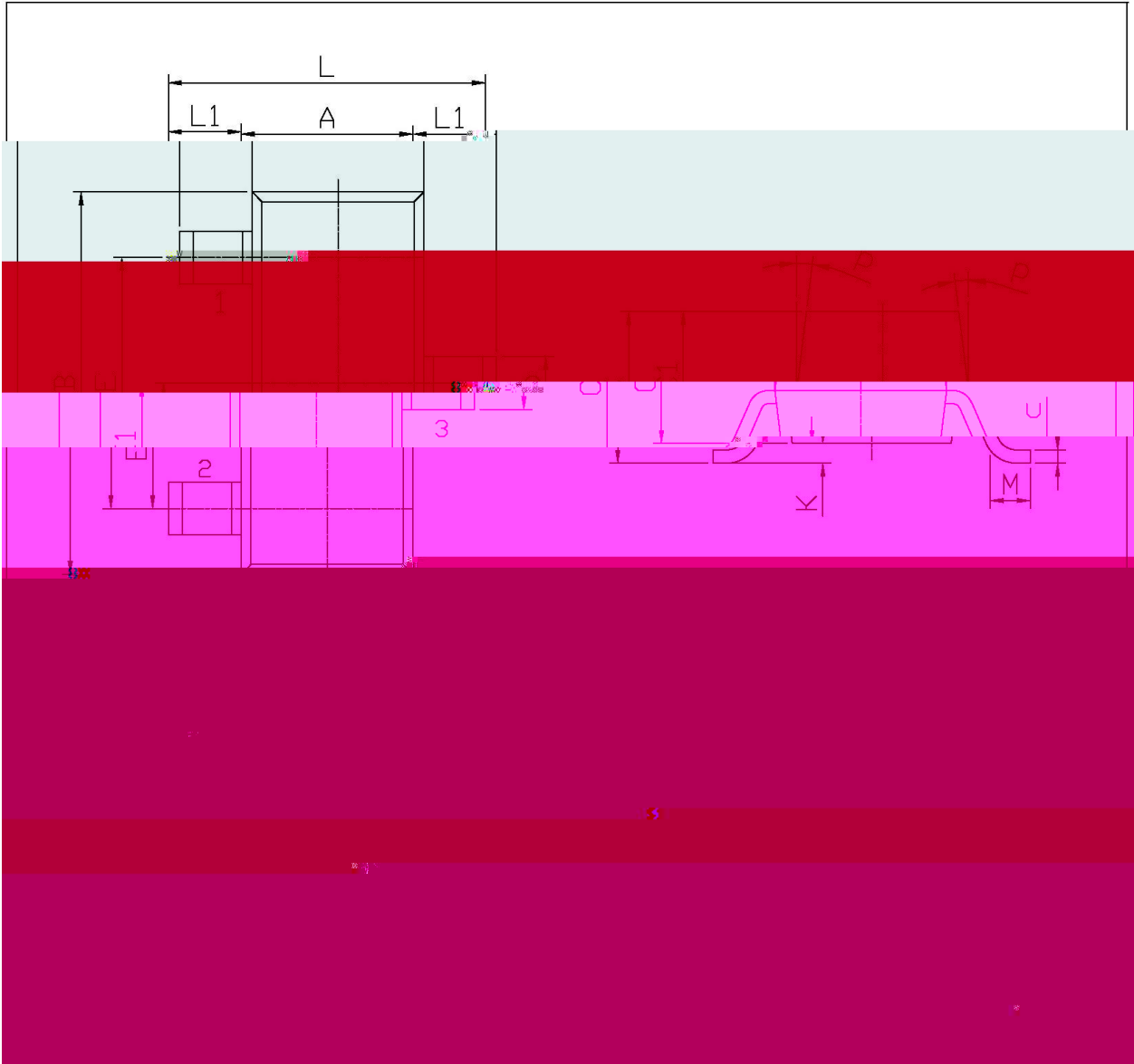
/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-Base Voltage	V_{CBO}	$I_C=$	50			V
Collector-Emitter Voltage	V_{CEO}	$I_C=1.0mA$	50			V
Emitter-Base Voltage	V_{EBO}	I_E	5.0			V
Collector Cut-off Current	I_{CBO}	$V_{CB}=50V$			0.5	
Emitter Cut-off Current	I_{EBO}	$V_{EB}=4.0V$			0.5	
DC Current Gain	h_{FE}	$V_{CE}=5.0V$ $I_C=1.0mA$	100	250	600	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=5.0mA$ $I_B=0.25mA$			0.3	V
Transition Frequency	f_T	$V_{CE}=10V$ $I_C=5.0mA$ $f_T=100MHz$		250		MHz
Resistance1	R1		3.29	4.7	6.11	

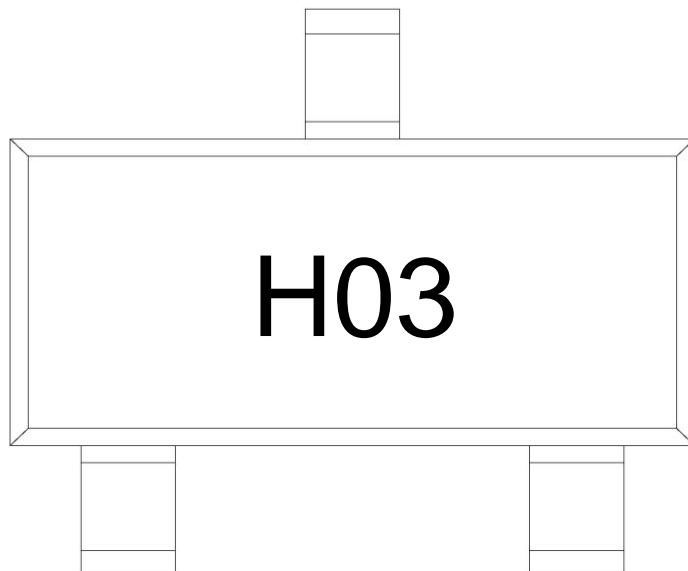
/ Package Dimensions

SOT-23

单位: mm



/ Marking Instructions



03

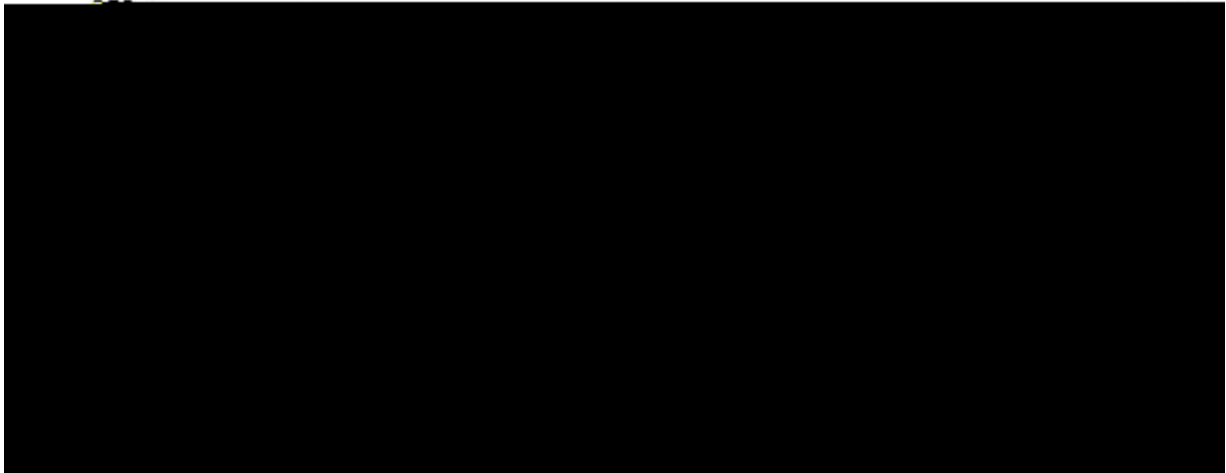
Note:

Company Code

03

Product Type

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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 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