

/ Descriptions

Silicon NPN transistor in a SOT-23 Plastic Package.

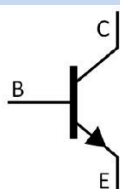
/ Features

Low $V_{CE(sat)}$, high current, HF product.

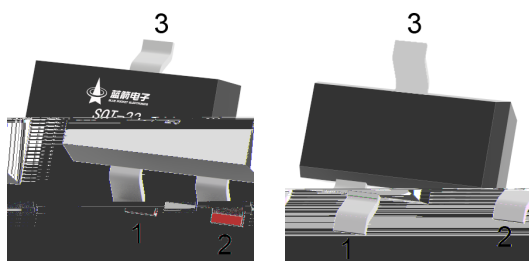
/ Applications

General purpose switching and muting, LCD back-lighting, supply line switching circuits.

/ Equivalent Circuit



/ Pinning



PIN 1 Base PIN 2 Emitter PIN 3 Collector

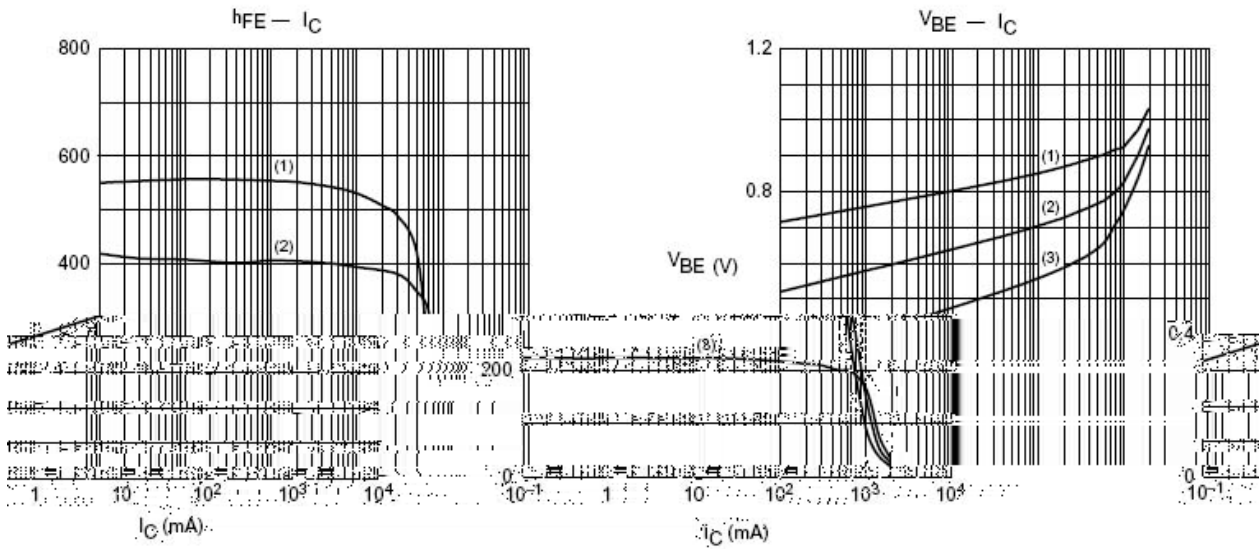
/ h_{FE} Classifications & Marking

h_{FE} Range	>200
Marking	HU5

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	80	V
Collector to Emitter Voltage	V_{CEO}	60	V
Emitter to Base Voltage	V_{EBO}	5	V
Collector Current	I_C	1	A
Peak Collector Current	I_{CM}	2	A
Base Current	I_B	0.3	A
Peak Base Current	I_{BM}	1	A
Collector Power Dissipation	P_C	400	mW
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55~150	

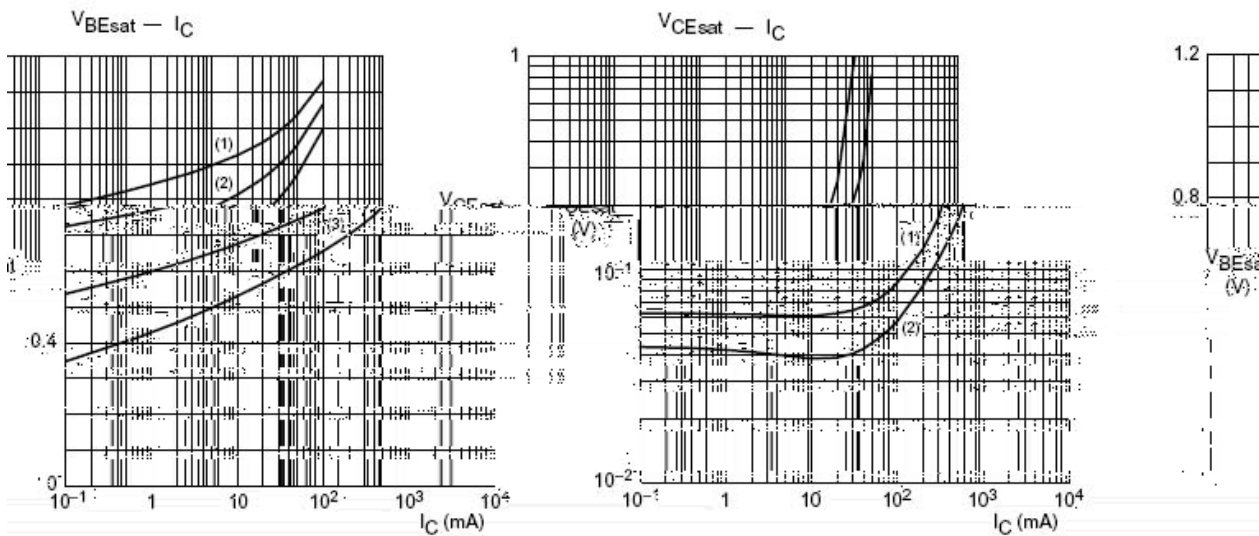
Parameter	Symbol	Test Conditions	Min	Typ	Max
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/ Electrical Characteristic Curve



$V_{CE} = 5\text{V}$
 $h_{FE} - I_C$
 (1) $T_{amb} = 100^\circ\text{C}$
 (2) $T_{amb} = 25^\circ\text{C}$
 (3) $T_{amb} = -55^\circ\text{C}$

$V_{CE} = 5\text{V}$
 $V_{BE} - I_C$
 (1) $T_{amb} = -55^\circ\text{C}$
 (2) $T_{amb} = 25^\circ\text{C}$
 (3) $T_{amb} = 100^\circ\text{C}$



$I_B = 20\text{mA}$
 $V_{BEsat} - I_C$
 (1) $T_{amb} = -55^\circ\text{C}$
 (2) $T_{amb} = 25^\circ\text{C}$
 (3) $T_{amb} = 100^\circ\text{C}$

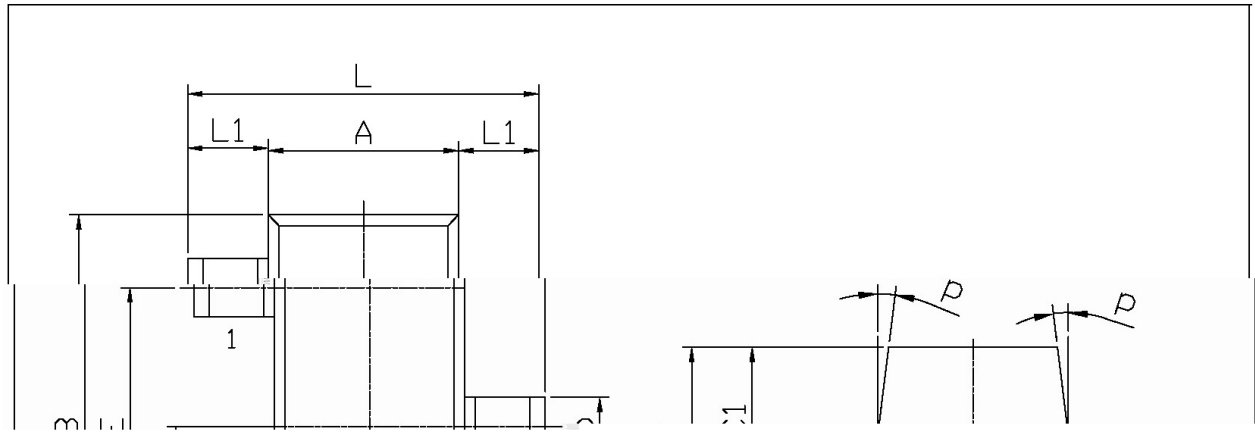
$T_{amb} = 25^\circ\text{C}$
 $V_{CEsat} - I_C$
 (1) $I_C/I_B = 100$
 (2) $I_C/I_B = 50$

I_C
 (1)
 (2)
 (3)

/ Package Dimensions

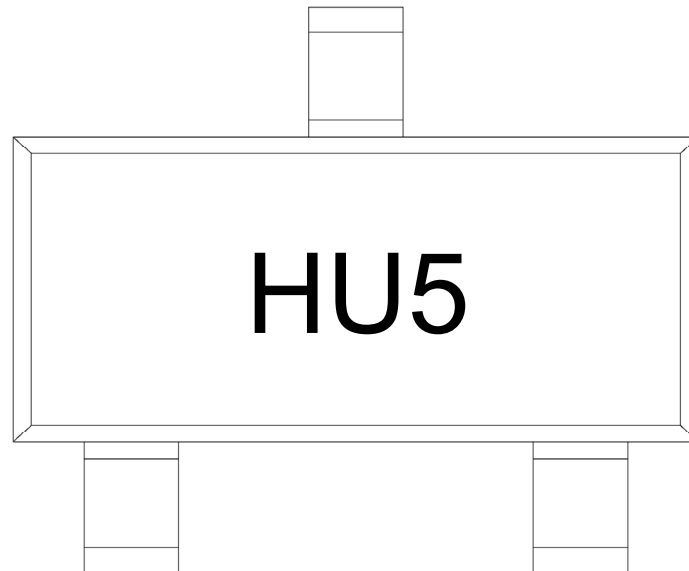
SOT-23

单位: mm



	MIN	MAX		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	K	0.05	0.25
B	2.70	3.10	M	0	0.10
E	1.70	2.10		0.20MIN	
E1	0.85	1.05		7°	
b	0.35	0.55			

/ Marking Instructions



U5

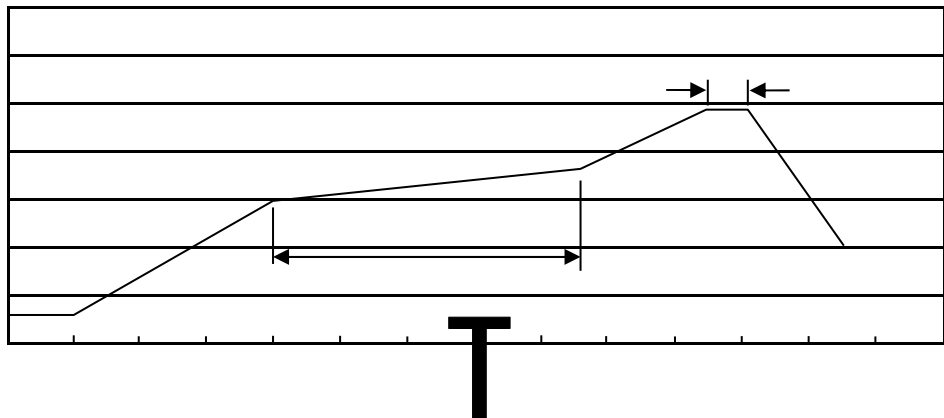
Note:

Company Code

U5

Product Type Code

() / Temperature Profile for IR Reflow Soldering(Pb-Free)



- Note:
- 1 150 180 60 90sec;

2 245 5 5 0.5sec;

3 2 10 /sec.
- 1.Preheating:150~180 , Time:60~90sec.

2.Peak Temp.:245 5 , Duration:5 0.5sec.

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