

/ Descriptions

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

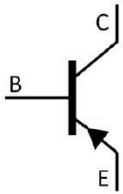
/ Features

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

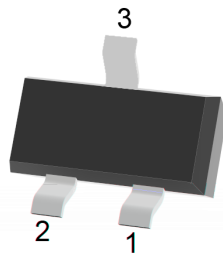
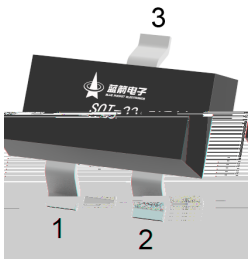
/ Applications

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	>150
Marking	HU6

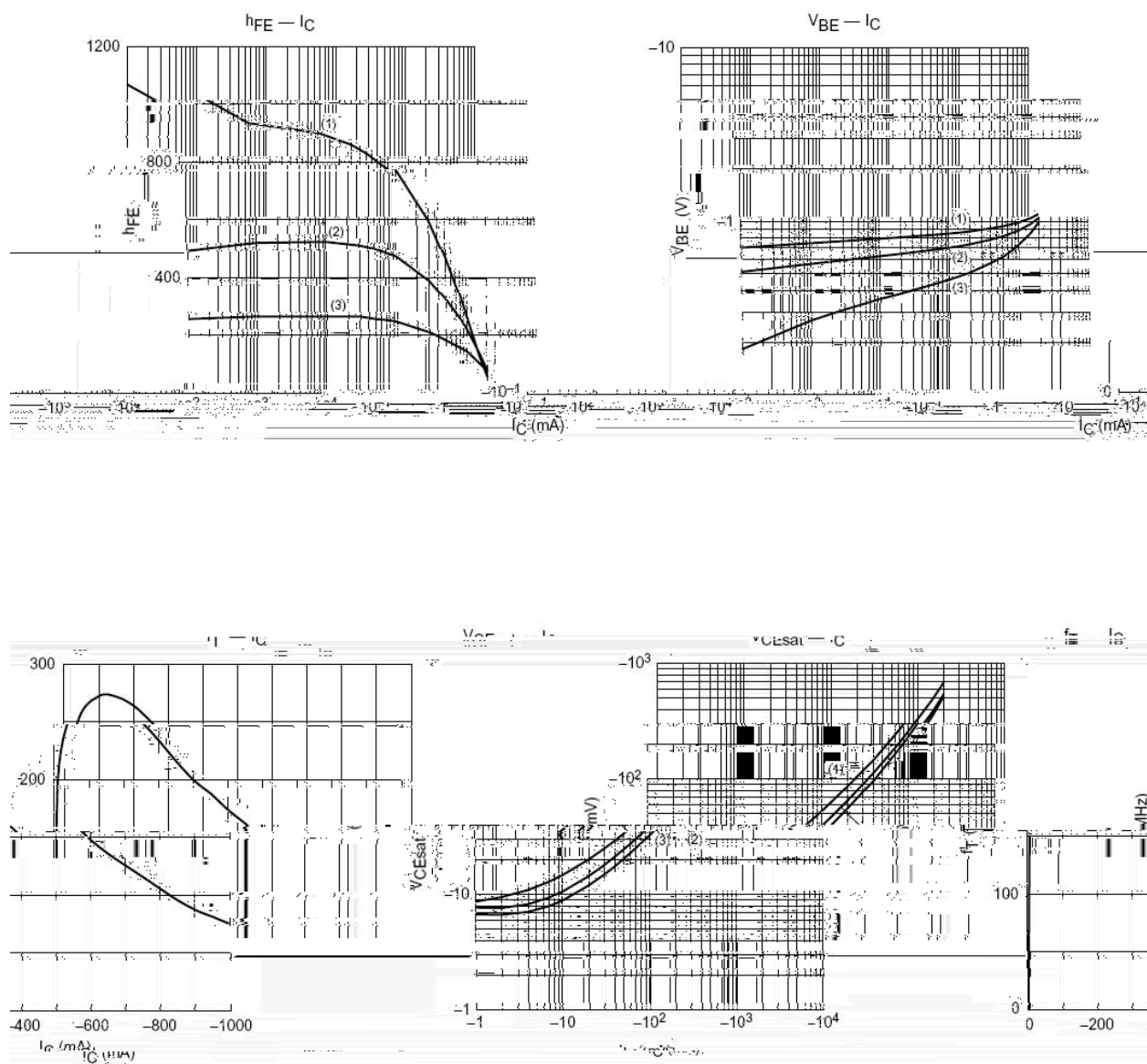
/ Absolute Maximum Ratings(Ta=25)

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
Total Power Dissipation	P_C	400	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 Cut-Off Current	I_{CBO}	$V_{CB}=-60V \quad I_E=0A$			-100	nA
		$V_{CB}=-60V \quad I_E=0A$ $T_j=150$			-50	μA
Collector-Emitter Cut-Off Current	I_{CES}	$V_{CE}=-60V \quad V_{BE}=0V$			-100	nA
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=-5V \quad I_C=0A$			-100	nA
DC Current Gain	$h_{FE(1)}$	$V_{CE}=-5V \quad I_C=-500mA$	150	250		
	$h_{FE(2)}$	$V_{CE}=-5V \quad I_C=-1mA$	200	350		
	$h_{FE(3)}$	$V_{CE}=-5V \quad I_C=-1A$	100	160		
Collector-Emitter Saturation Voltage	$V_{CE(sat)(1)}$	$I_C=-100mA \quad I_B=-1mA$		-110	-160	mV
	$V_{CE(sat)(2)}$	$I_C=-500mA \quad I_B=-50mA$		-120	-175	mV
	$V_{CE(sat)(3)}$	$I_C=-1A \quad I_B=-100mA$		-220	-330	mV
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=-1A \quad I_B=-50mA$		-0.95	-1.1	V
Base-Emitter Voltage	V_{BE}	$V_{CE}=-5V \quad I_C=-1A$		-0.82	-0.9	V
Transition Frequency	f_T	$V_{CE}=-10V \quad I_C=-50mA$ $f=100MHz$	150	220		MHz
Collector Capacitance	C_C	$V_{CB}=-10V \quad I_E=0A$ $f=1MHz$		9	15	pF

/ Electrical Characteristic Curve



/ Package Dimensions

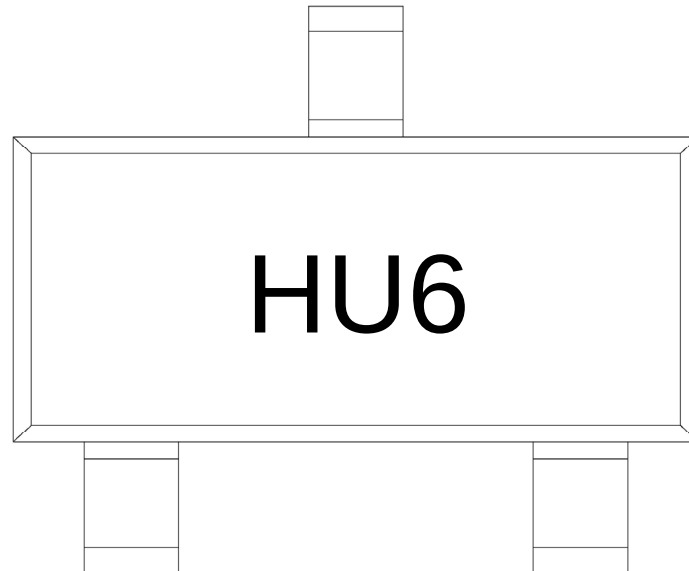
SOT-23

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

/ Marking Instructions



H

U6

Note:

H Company Code

U6 Product Type Code

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

Note:

- | | | | |
|---|---------|-----------|---|
| 1 | 150 180 | 60 90sec; | 1.Preheating:150~180 , 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