

/ Descriptions

Silicon NPN transistor in a SOT-23 Plastic Package.

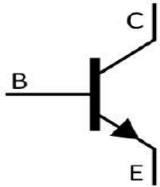
/ Features

Low current, high voltage.

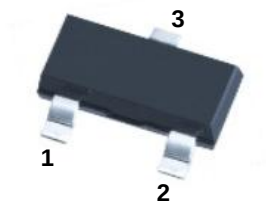
/ Applications

Telephony and professional communication equipment.

/ Equivalent Circuit



/ Pinning



PIN1 Base PIN 2 Emitter PIN 3 Collector

/ h_{FE} Classifications & Marking

h_{FE} Range	>50
Marking	H1XW

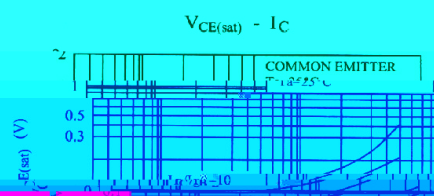
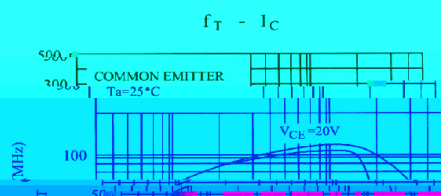
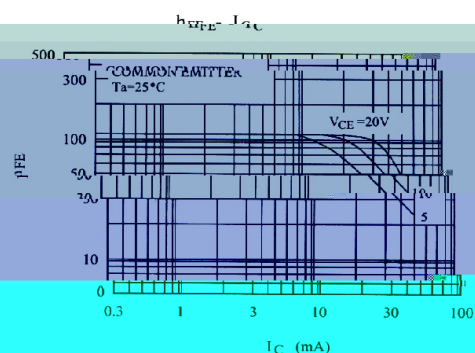
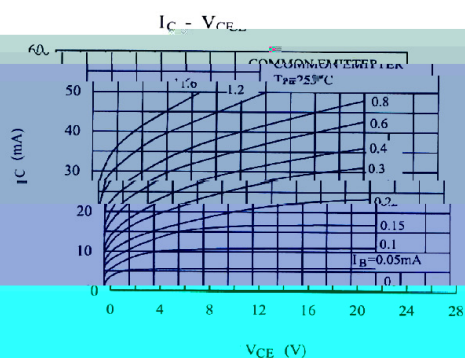
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	250	V
Collector to Emitter Voltage	V_{CEO}	250	V
Emitter to Base Voltage	V_{EBO}	5.0	V
Collector Current - Continuous	I_C	50	mA
Peak Collector Current- Continuous	I_{CM}	100	mA
Base Current	I_B	50	mA
Collector 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 Cut-Off Current	I_{CBO}	$V_{CB}=200V$ $I_E=0$ $T_j=150$			10	μA
Collector Cut-Off Current	I_{CBO}	$V_{CB}=200V$ $I_E=0$			0.01	μA
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=5.0V$ $I_C=0$			0.05	μA
DC Current Gain	h_{FE}	$V_{CE}=20V$ $I_C=25mA$	50			
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=30mA$ $I_B=5.0mA$			0.6	V
Feedback Capacitance	C_{re}	$V_{CB}=30V$ $I_E=0$ $f=1.0MHz$			1.6	pF
Transition Frequency	f_T	$V_{CE}=10V$ $I_C=10mA$ $f=100MHz$	60			MHz

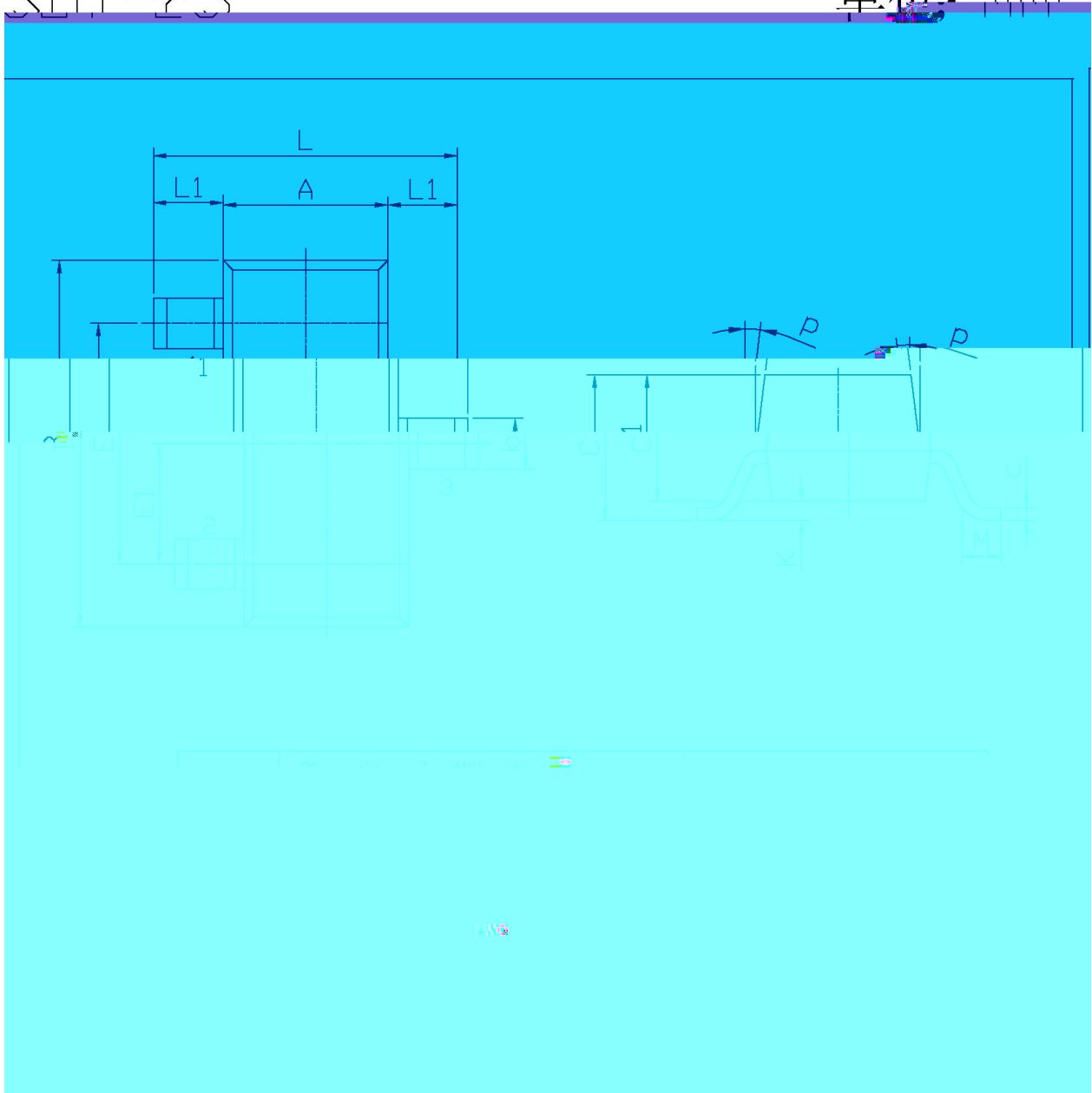
/ Electrical Characteristic Curve



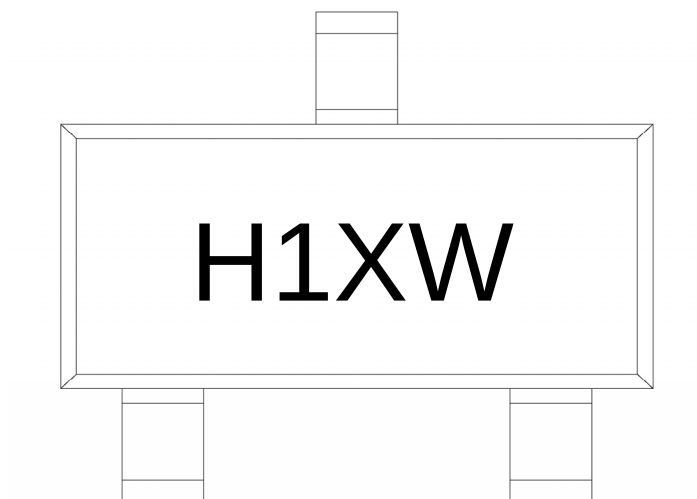
/ Package Dimensions

SOT-23

单位: mm



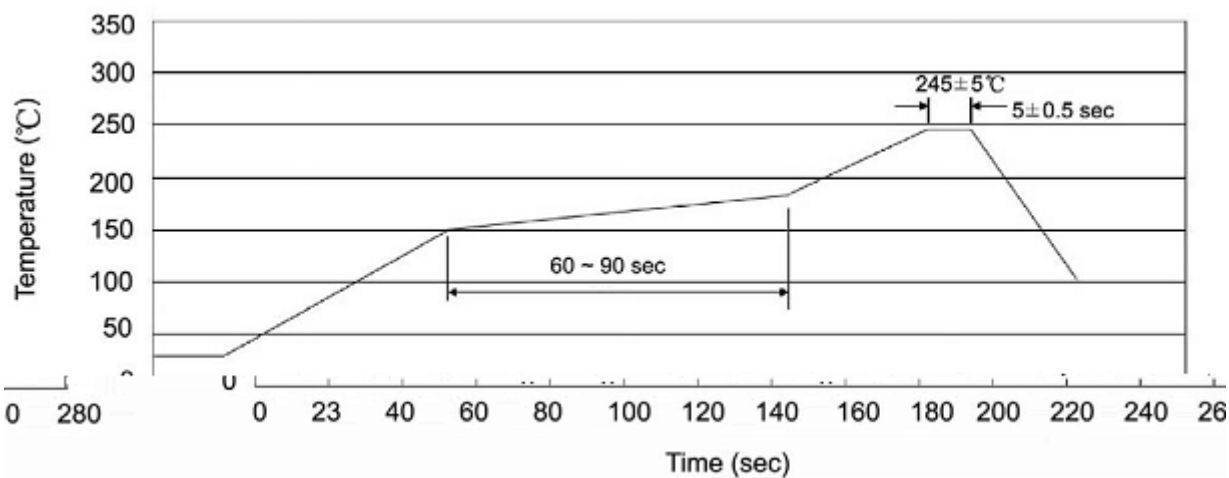
/ Marking Instructions



Note:

H: Company Code.

1XW: Product Type Code.


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


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