

/ Descriptions

Silicon NPN transistor in a SOT-23 Plastic Package.

/ Features

High f_T , low collector to base time constant, low output capacitance.

/ Applications

For use as UHF oscillator and a UHF mixer in a tuner of a TV receiver.

/ Equivalent Circuit



/ Pinning



PIN1 Base PIN 2 Emitter PIN 3 Collector

/ h_{FE} Classifications & Marking

h_{FE} Classifications Symbol	P	Q	R
h_{FE} Range	40~80	60~120	100~200
Marking	HT62	HT63	HT64

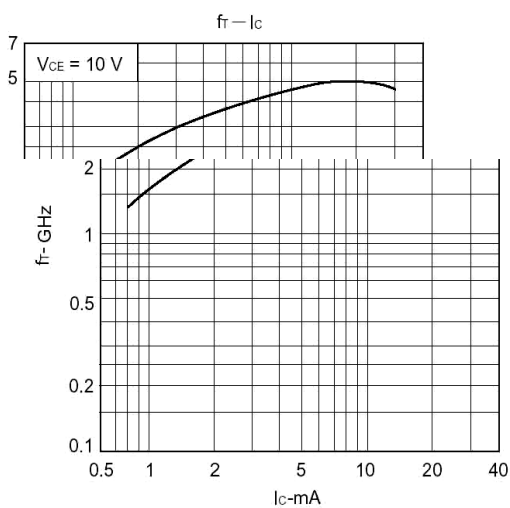
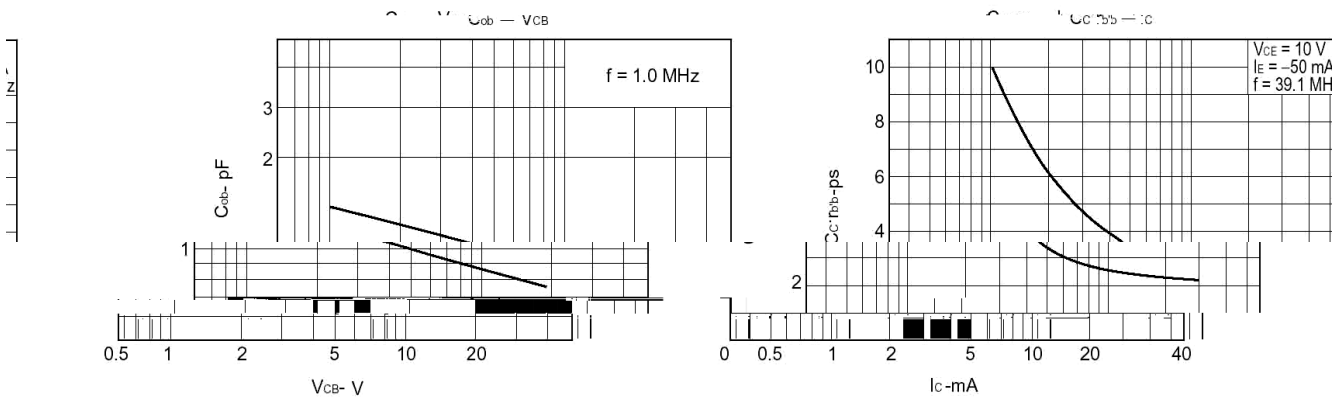
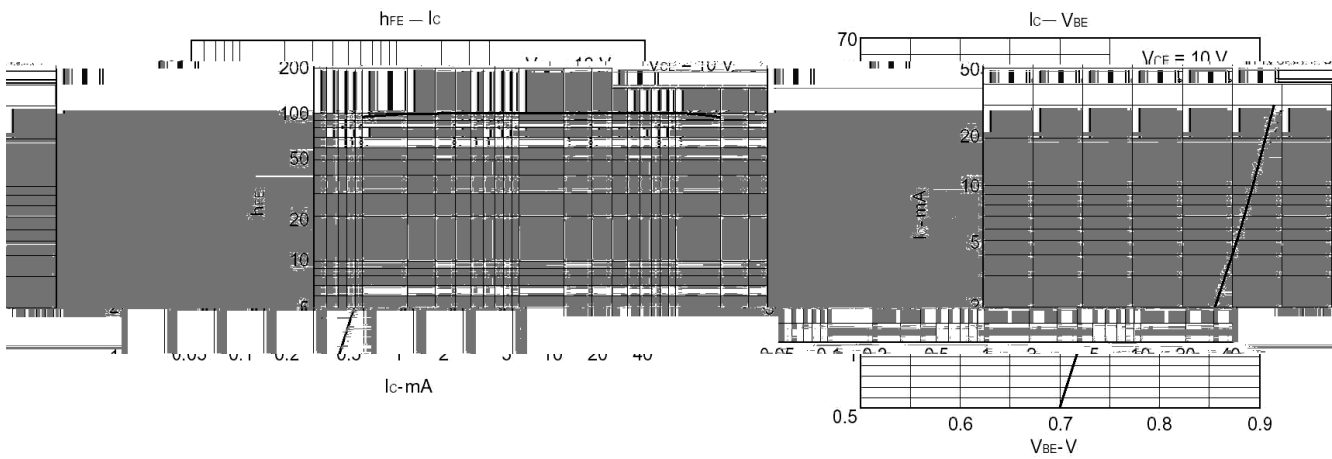
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	25	V
Collector to Emitter Voltage	V_{CEO}	12	V
Emitter to Base Voltage	V_{EBO}	3.0	V
Collector Current	I_C	30	mA
Collector 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 Cut-Off Current	I_{CBO}	$V_{CB}=10V$ $I_E=0$			0.1	μA
DC Current Gain	h_{FE}	$V_{CE}=10V$ $I_C=5.0mA$	40	100	200	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=10mA$ $I_B=1.0mA$		0.09	0.5	V
Transition Frequency	f_T	$V_{CE}=10V$ $I_E=-5.0mA$	2.5	4.0		GHz
Collector output capacitance	C_{ob}	$V_{CB}=10V$ $I_E=0$ $f=1.0MHz$		0.85	1.5	pF
Collector to Base Time Constant	$C_C \cdot r_{bb'}$	$V_{CE}=10V$ $I_E=-5.0mA$ $f=31.9MHz$		4.0	10	ps

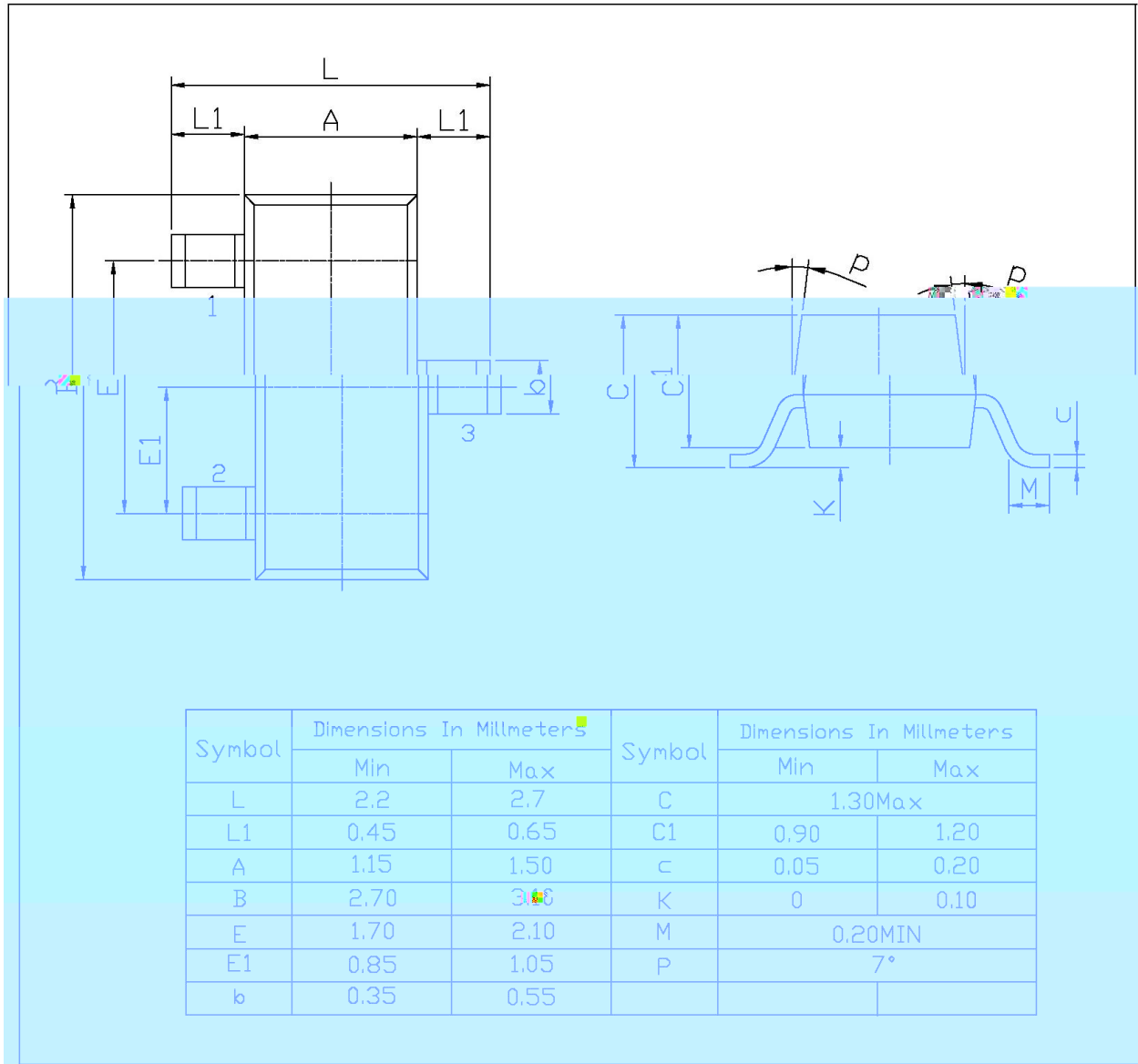
/ Electrical Characteristic Curve



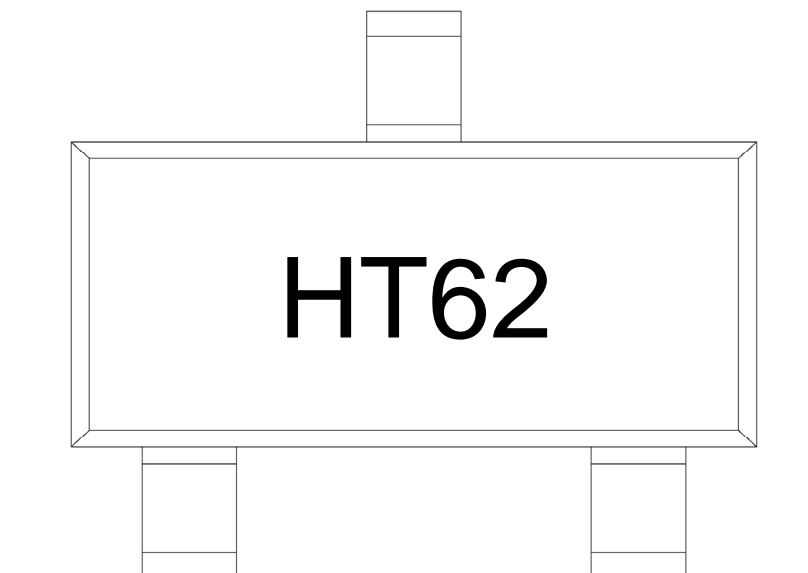
/ Package Dimensions

SOT-23

单位: mm



/ Marking Instructions

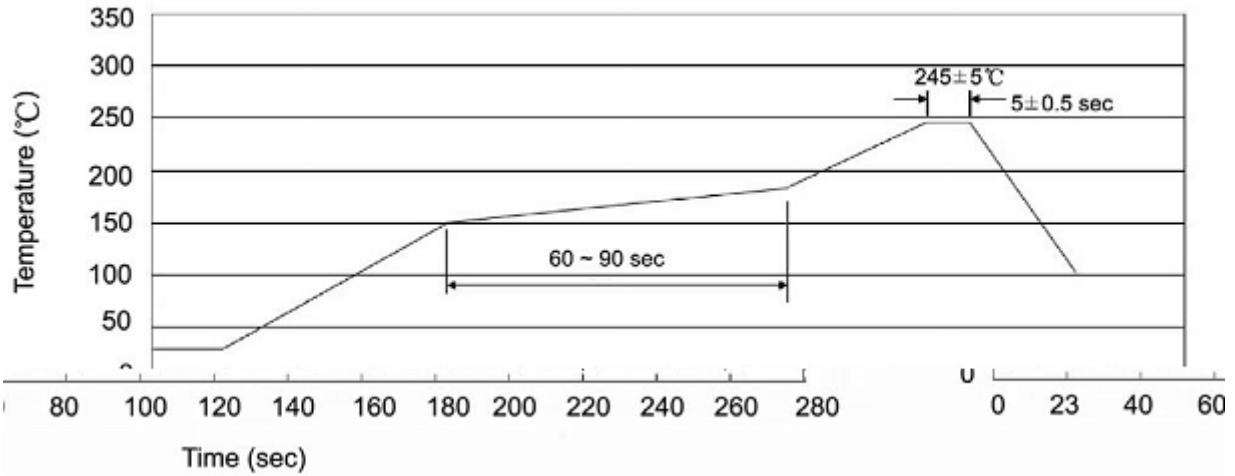


Note:

Company Code

Product Type Code

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Note:

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|---|-----|-----|----|---------|---|
| 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