

/ Descriptions

Silicon PNP transistor in a SOT-323 Plastic Package.

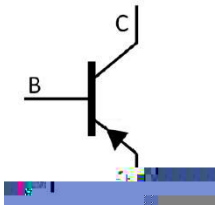
/ Features

Medium power amplifier and switch requiring collector currents up to 500 mA.

/ Applications

Medium power amplifier and switch requiring.

/ Equivalent Circuit



/ Pinning



PIN1 Emitter PIN 2 Base PIN 3 Collector

/ Marking

Marking	2TH
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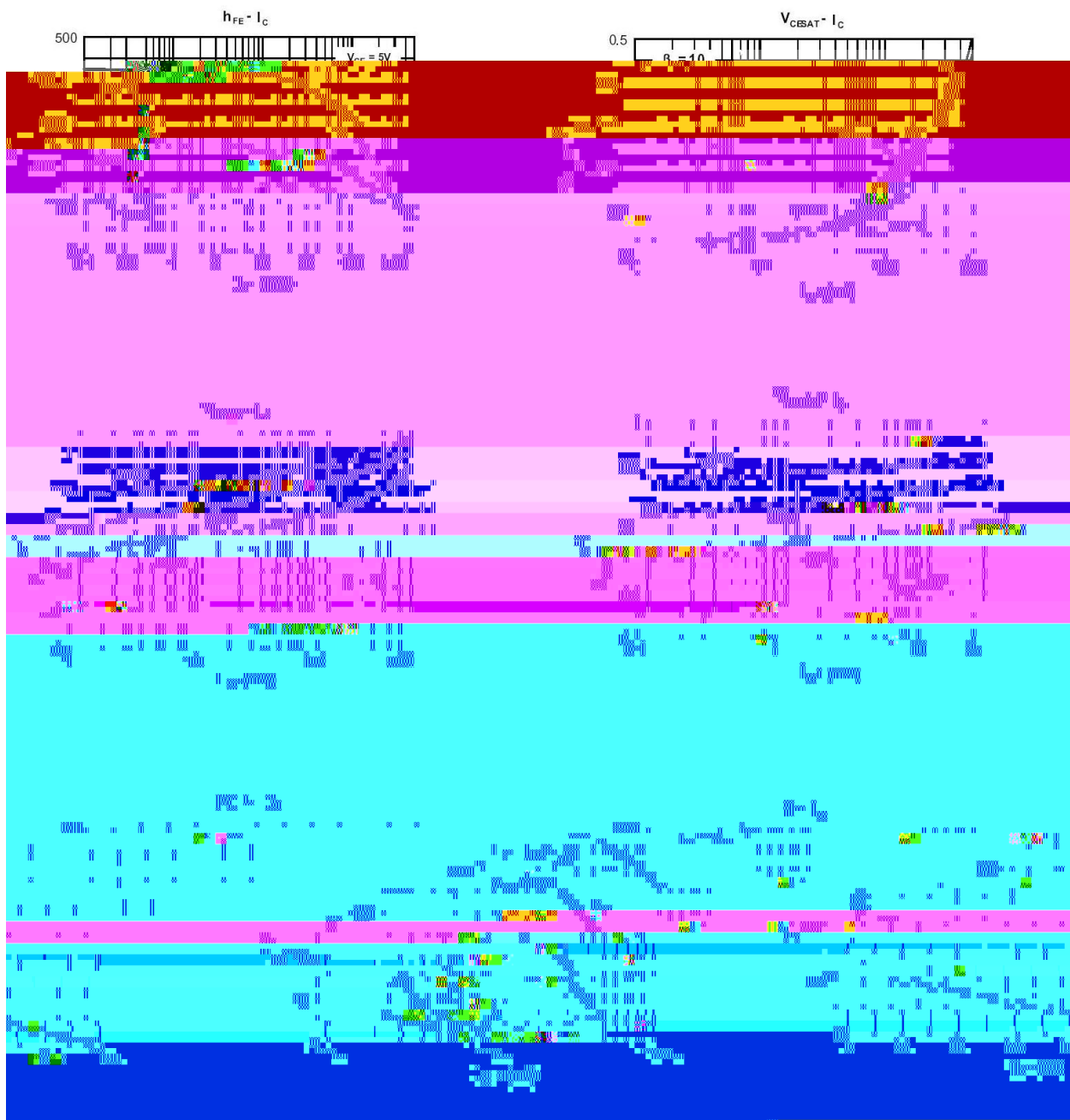
/ Absolute Maximum Ratings(Ta=25 –)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	-40	V
Collector to Emitter Voltage	V_{CEO}	-40	V
Emitter to Base Voltage	V_{EBO}	-5.0	V
Collector Current - Continuous	I_C	-600	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 to Emitter Breakdown Voltage	V_{CEO}	$I_C=-1.0mA$ $I_B=0$	-40			V
Collector to Base Breakdown Voltage	V_{CBO}	$I_C=-0.1mA$ $I_E=0$	-40			V
Emitter to Base Breakdown Voltage	V_{EBO}	$I_E=-0.1mA$ $I_C=0$	-5.0			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=-40V$ $I_E=0$			-50	nA
Emitter to Base Current	I_{EBO}	$V_{EB}=-5V$ $I_C=0$			-50	nA
DC Current Gain	$h_{FE(1)}$	$V_{CE}=-2.0V$ $I_C=-150mA$	100		300	
	$h_{FE(2)}$	$V_{CE}=-1.0V$ $I_C=-0.1mA$	30			
	$h_{FE(3)}$	$V_{CE}=-1.0V$ $I_C=-1.0mA$	60			
	$h_{FE(4)}$	$V_{CE}=-1.0V$ $I_C=-10mA$	100			
	$h_{FE(5)}$	$V_{CE}=-2.0V$ $I_C=-500mA$	20			
Collector to Emitter Saturation Voltage	$V_{CE(sat)(1)}$	$I_C=-150mA$ $I_B=-15mA$			-0.4	V
	$V_{CE(sat)(2)}$	$I_C=-500mA$ $I_B=-50mA$			-0.75	V
Base to Emitter Saturation Voltage	$V_{BE(sat)(1)}$	$I_C=-150mA$ $I_B=-15mA$	-0.75		-0.95	V
	$V_{BE(sat)(2)}$	$I_C=-500mA$ $I_B=-50mA$			-1.3	V
Transition Frequency	f_T	$V_{CE}=-10V$ $I_C=-20mA$ $f=100MHz$	200			MHz
Delay Time	t_d	$V_{CC}=-30V$ $I_C=-150mA$ $I_{B1}=-15mA$			15	ns
Rise Time	t_r				20	ns
Storage Time	t_s	$V_{CC}=-30V$ $I_C=-150mA$ $I_{B1}=I_{B2}=-15mA$			225	ns
Fall Time	t_f				30	ns

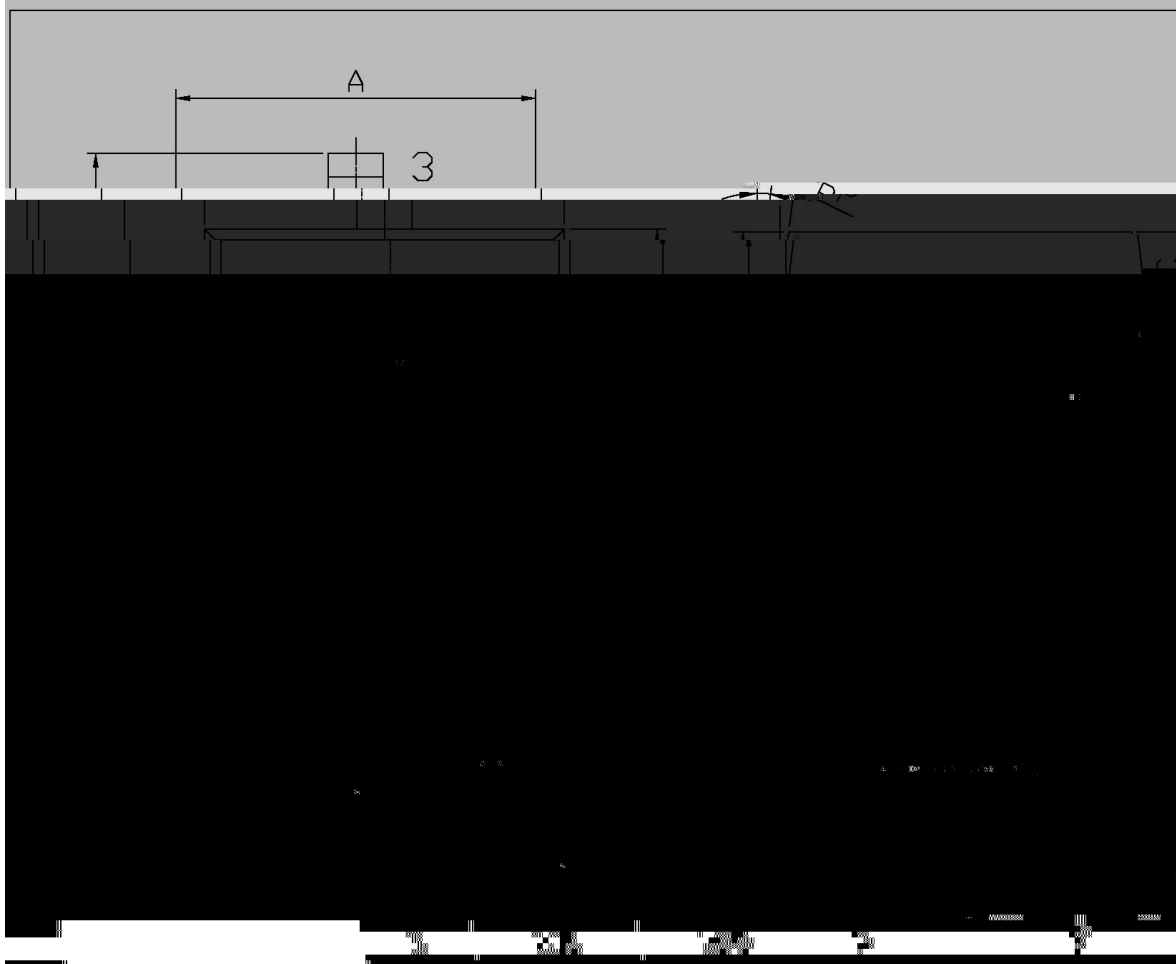
/ Electrical Characteristic Curve



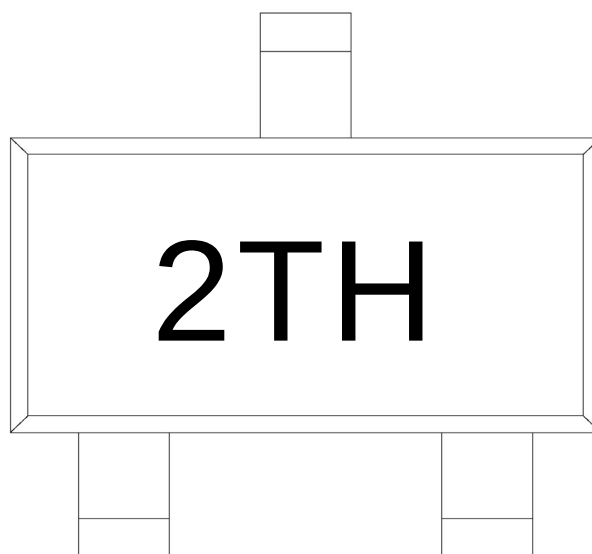
/ Package Dimensions

SOT-323

单位: mm



/ Marking Instructions



2T

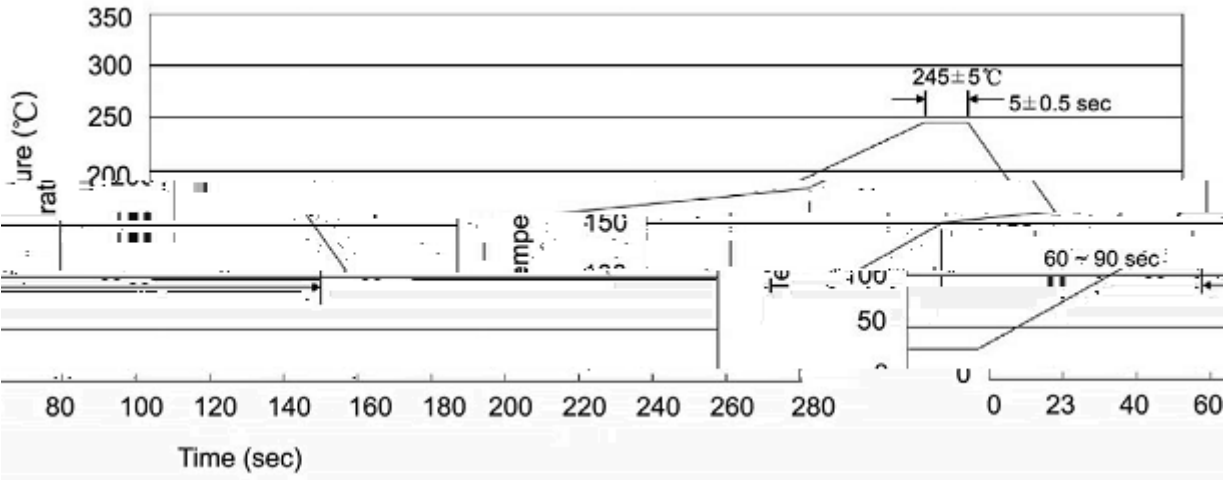
H

Note:

2T: Product Type.

H: Company Code.

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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	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-323	3,000	10	30,000	6	180,000	7 ×8	180×120×180	390×385×205

/ Notices /