/ Descriptions

SOT-323 PNP Silicon PNP transistor in a SOT-323 Plastic Package.

/ Features

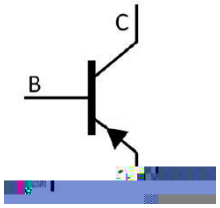
500mA

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

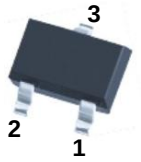
/ Applications

Medium power amplifier and switch requiring.

/ Equivalent Circuit



/ Pinning



PIN1 Emitter PIN 2 Base PIN 3 Collector

/ Marking

Marking	2TH

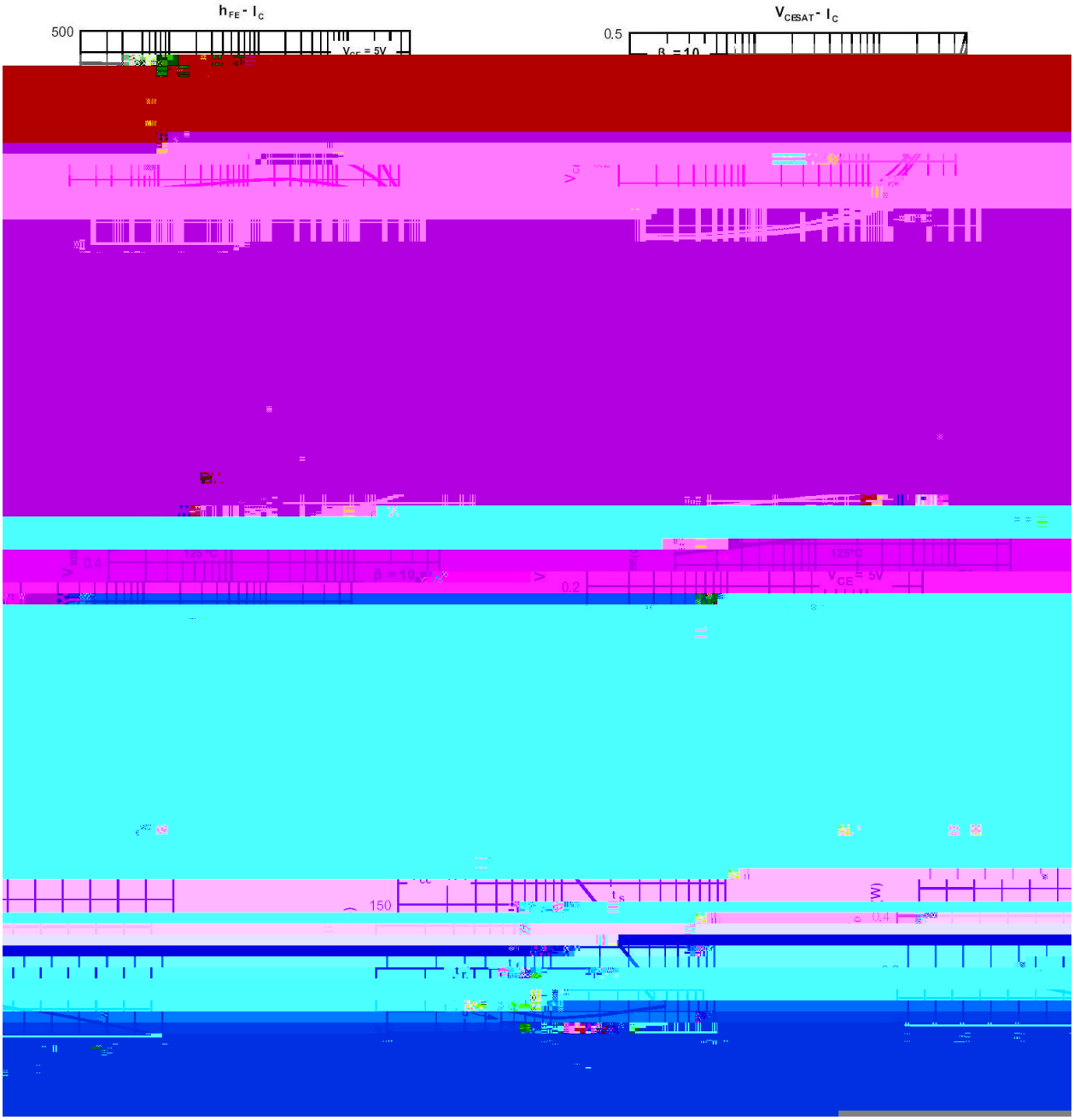
/ Absolute Maximum Ratings(Ta=25)

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	

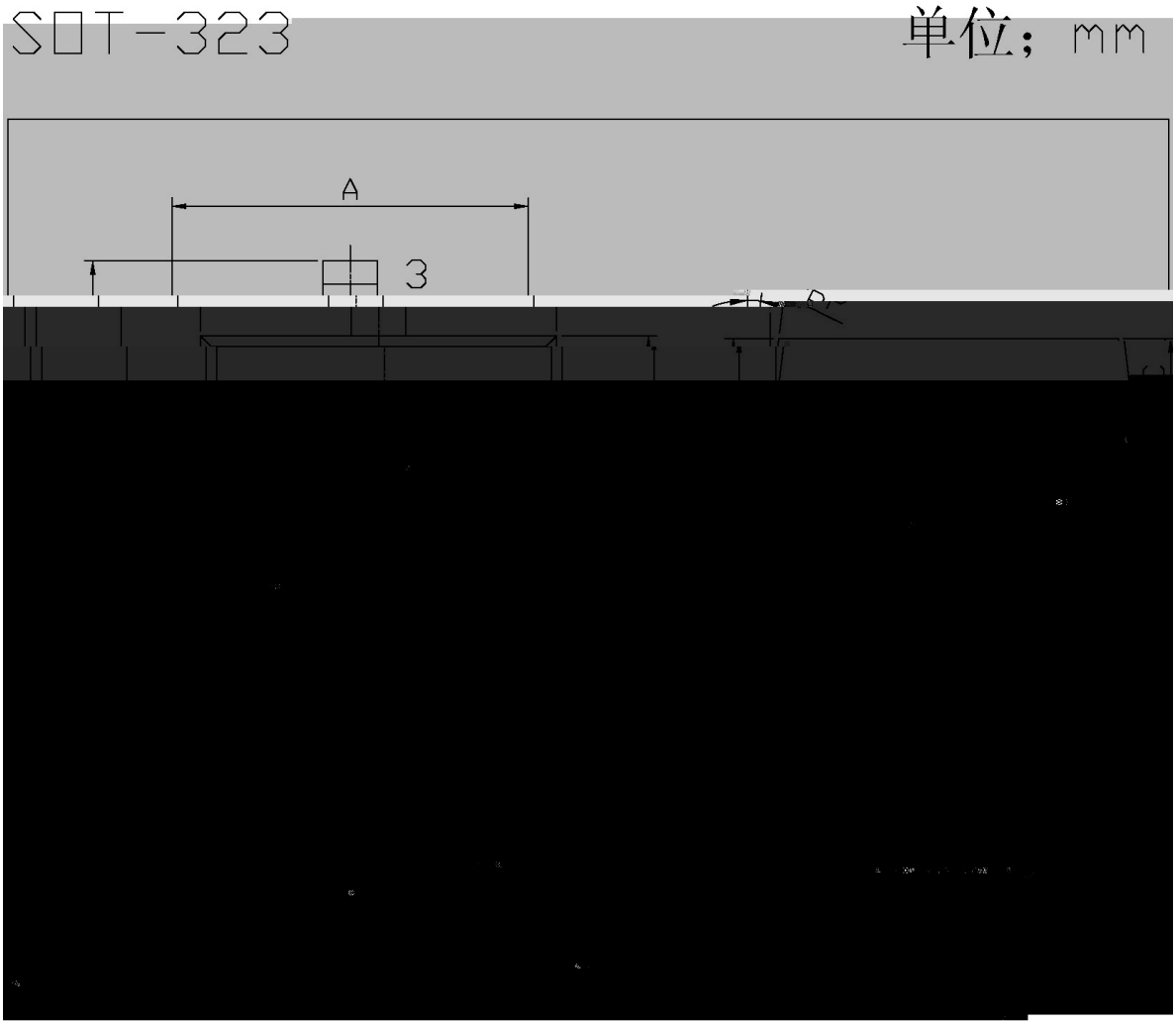
/ Electrical Characteristics(Ta=25)

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

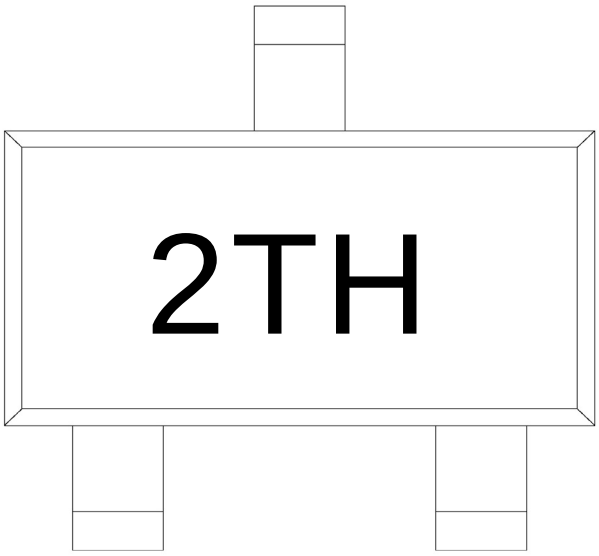
/ Electrical Characteristic Curve



/ Package Dimensions



/ Marking Instructions



2T

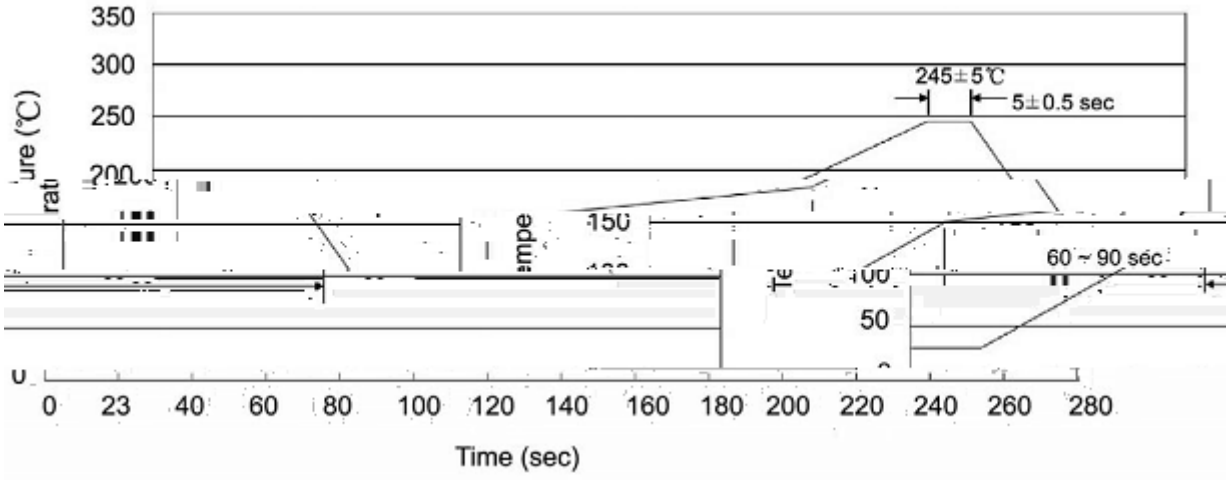
H

Note:

2T: Product Type.

H: Company Code.

( ) /



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)

/ Notices /