

MMBT4403W

Rev.E Sep.-2016

/ Descriptions

SOT-323

PNP

Silicon PNP transistor in a SOT-323 Plastic Package.

/ Features

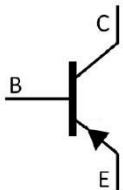
500mA

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
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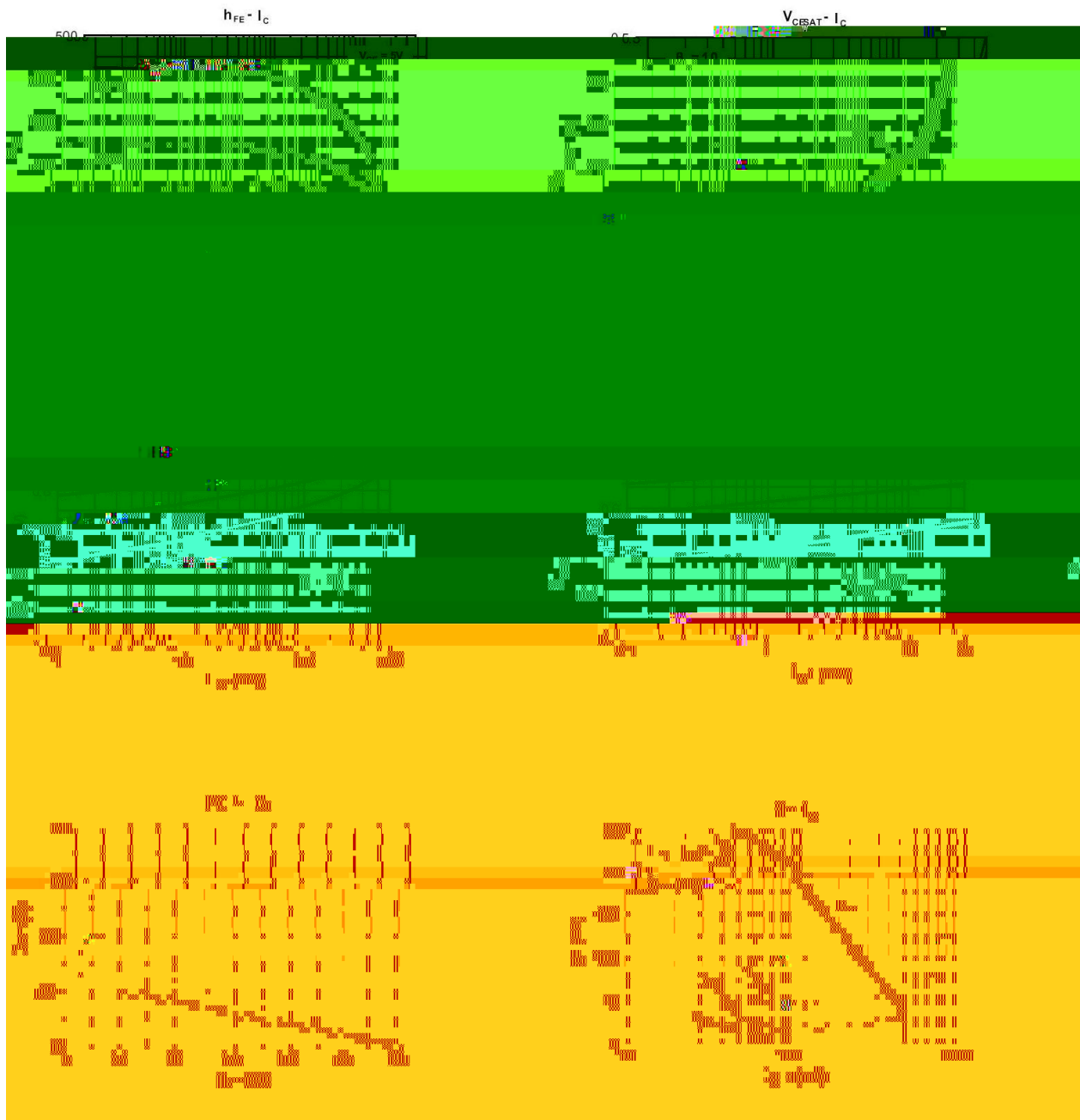
/ Absolute Maximum Ratings(Ta=25 –)

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	°C
Storage Temperature Range	T_{stg}	-55 150	°C

/ Electrical Characteristics(Ta=25 –)

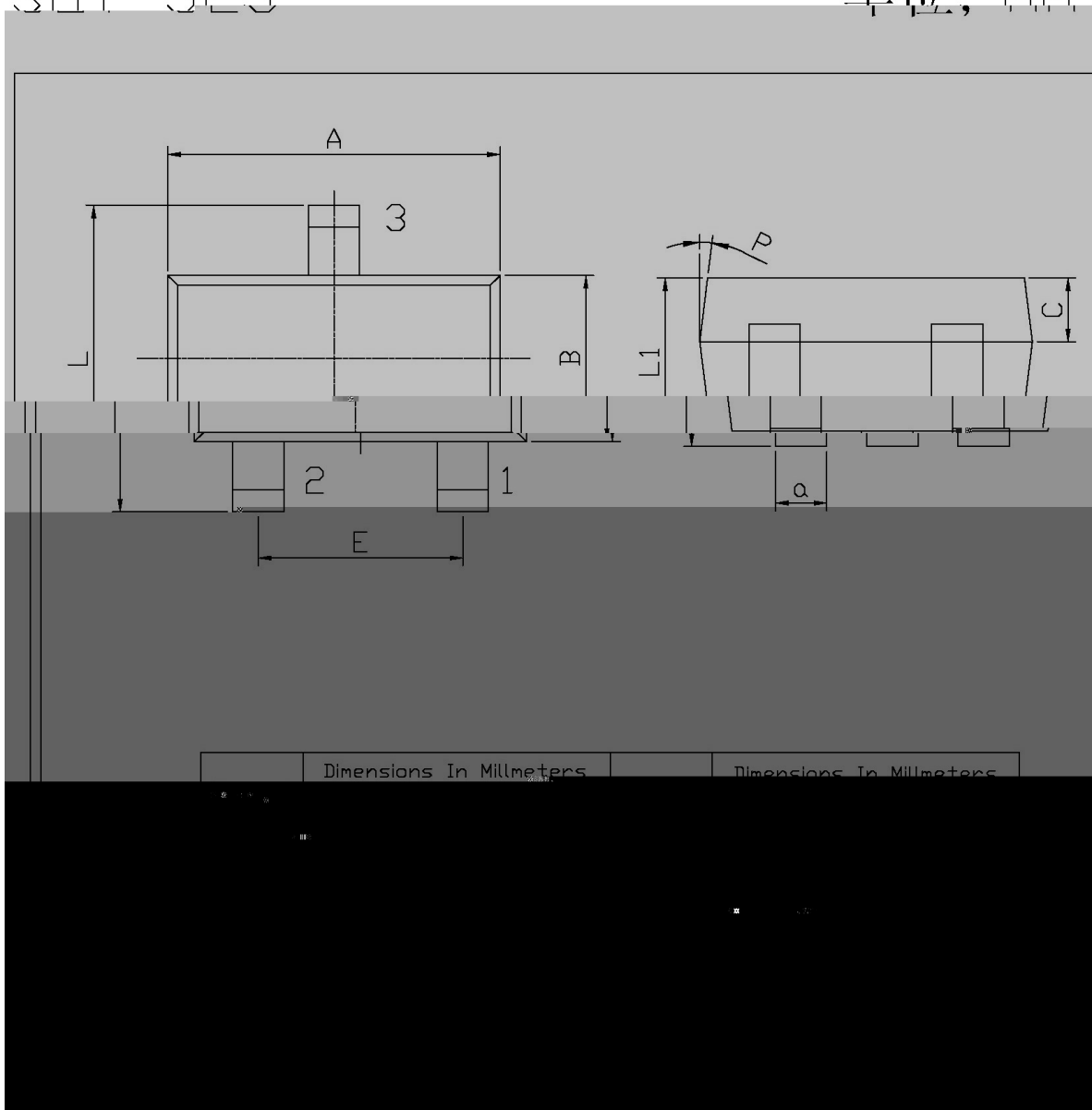
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C = -1.0mA$ $I_B = 0$	-40			V
Collector to Base Breakdown Voltage	V_{CBO}	$I_C = -0.1mA$ $I_E = 0$	-40			V
Emitter to Base Breakdown Voltage	V_{EBO}	$I_E = -0.1mA$ $I_C = 0$	-5.0			V
Collector Cut-Off 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

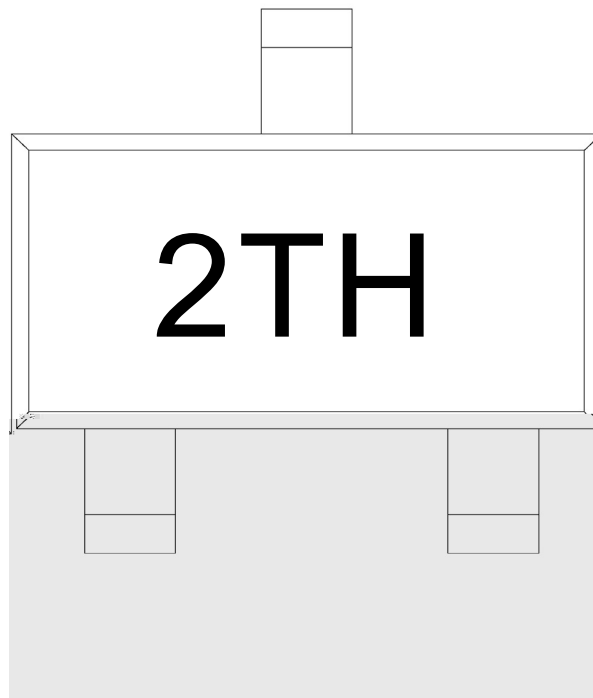


SQT-323

单位: 万元



/ Marking Instructions



2T

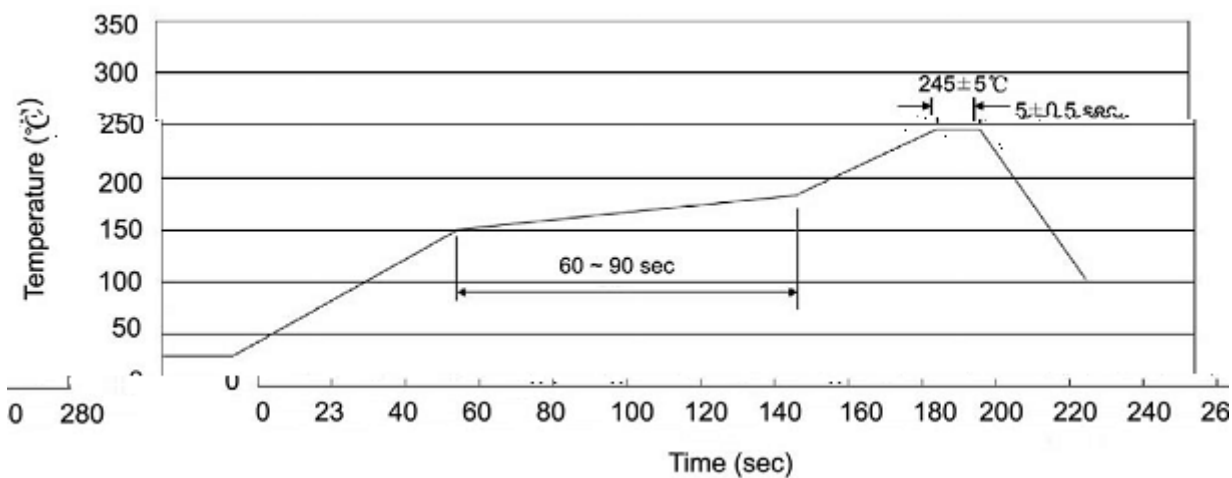
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Note:

2T: Product Type.

H: Company 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°C

Time:10±1 sec

/ Packaging SPEC.

/ REEL

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	只 卷盘	卷盘 盒	只 盒	盒 箱	只 箱		盒	箱

/ Notices