

MMBT2907AW

Rev.F Aug.-2018

“Y / Descriptions

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

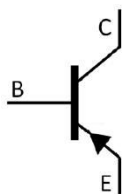
• Ė / Features

Low power surface mount applications.

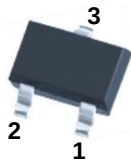
v / Applications

General purpose amplifier.

Ѕ ˆ ǻ ˆ / Equivalent Circuit



ã ı ů / Pinning



PIN1 Emitter PIN 2 Base PIN 3 Collector

ı. ı ħ ı / Marking

h_{FE} Range	100~300
Marking	H2F

绝对最大额定值 (Ta=25℃)

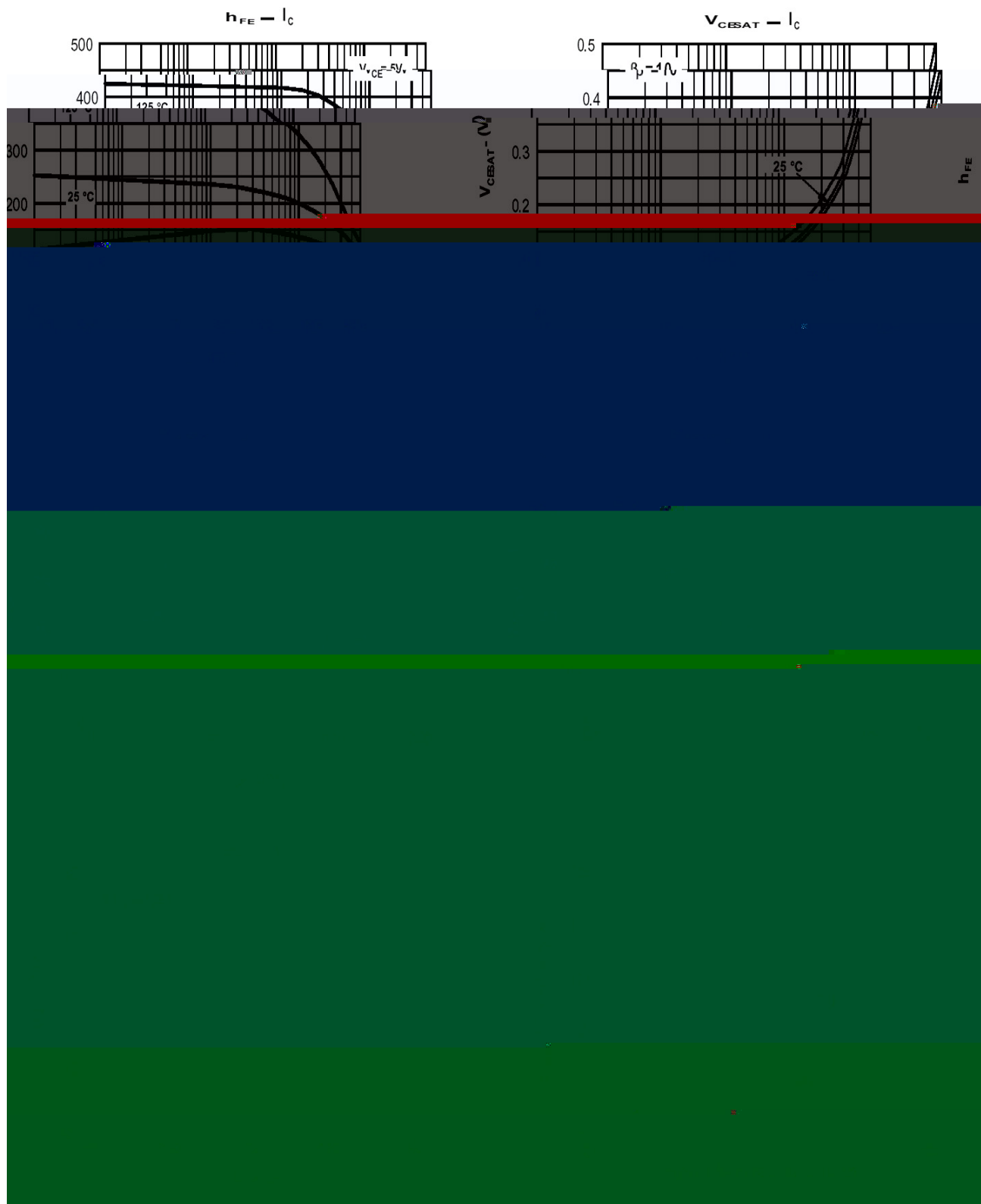
Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	-60	V
Collector to Emitter Voltage	V_{CEO}	-60	V
Emitter to Base Voltage	V_{EBO}	-5.0	V
Collector Current - Continuous	I_C	-600	mA
Collector Power Dissipation	P_C	200	mW
Junction Temperature	T_j	150	℃
Storage Temperature Range	T_{stg}	-55~150	℃

电 气 特 性 (Ta=25℃)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	V_{CBO}	$I_C = -10\text{ A}$ $I_E = 0$	-60			V
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C = -10\text{ mA}$ $I_B = 0$	-60			V
Emitter to Base Breakdown Voltage	V_{EBO}	$I_E = -10\text{ A}$ $I_C = 0$	-5.0			V
Collector Cut-Off Current	I_{CBO}	$V_{CB} = -50\text{ V}$ $I_E = 0$			-0.01	A
DC Current Gain	$h_{FE(1)}$	$V_{CE} = -10\text{ V}$ $I_C = -150\text{ mA}^*$	100		300	
	$h_{FE(2)}$	$V_{CE} = -10\text{ V}$ $I_C = -500\text{ mA}^*$	50			
	$h_{FE(3)}$	$V_{CE} = -10\text{ V}$ $I_C = -10\text{ mA}$	100			
	$h_{FE(4)}$	$V_{CE} = -10\text{ V}$ $I_C = -1.0\text{ mA}$	100			
	$h_{FE(5)}$	$V_{CE} = -10\text{ V}$ $I_C = -0.1\text{ mA}$	75			
Collector to Emitter Saturation Voltage	$V_{CE(sat) (1)}$	$I_C = -150\text{ mA}$ $I_B = -15\text{ mA}$			-0.4	V
	$V_{CE(sat) (2)}$	$I_C = -500\text{ mA}$ $I_B = -50\text{ mA}$			-1.6	V
Base to Emitter Saturation Voltage	$V_{BE(sat) (1)}$	$I_C = -150\text{ mA}$ $I_B = -15\text{ mA}$			-1.3	V
	$V_{BE(sat) (2)}$	$I_C = -500\text{ mA}$ $I_B = -50\text{ mA}$			-2.6	V
Transition Frequency	f_T	$V_{CE} = -20\text{ V}$ $f = 100\text{ MHz}$ $I_C = -50\text{ mA}$	200			MHz
Collector output capacitance	C_{ob}	$V_{CB} = -10\text{ V}$ $f = 1.0\text{ MHz}$ $I_E = 0$			8.0	pF
Turn-On Time	t_{on}	$V_{CC} = -30\text{ V}$ $I_C = -150\text{ mA}$ $I_{B1} = -15\text{ mA}$			50	ns
Turn-Off Time	t_{off}	$V_{CC} = -6.0\text{ V}$ $I_C = -150\text{ mA}$ $I_{B1} = I_{B2} = -15\text{ mA}$			110	ns

*Pulse Test: Pulse Width $\leq 300\text{ }\mu\text{s}$, Duty Cycle $\leq 2.0\%$

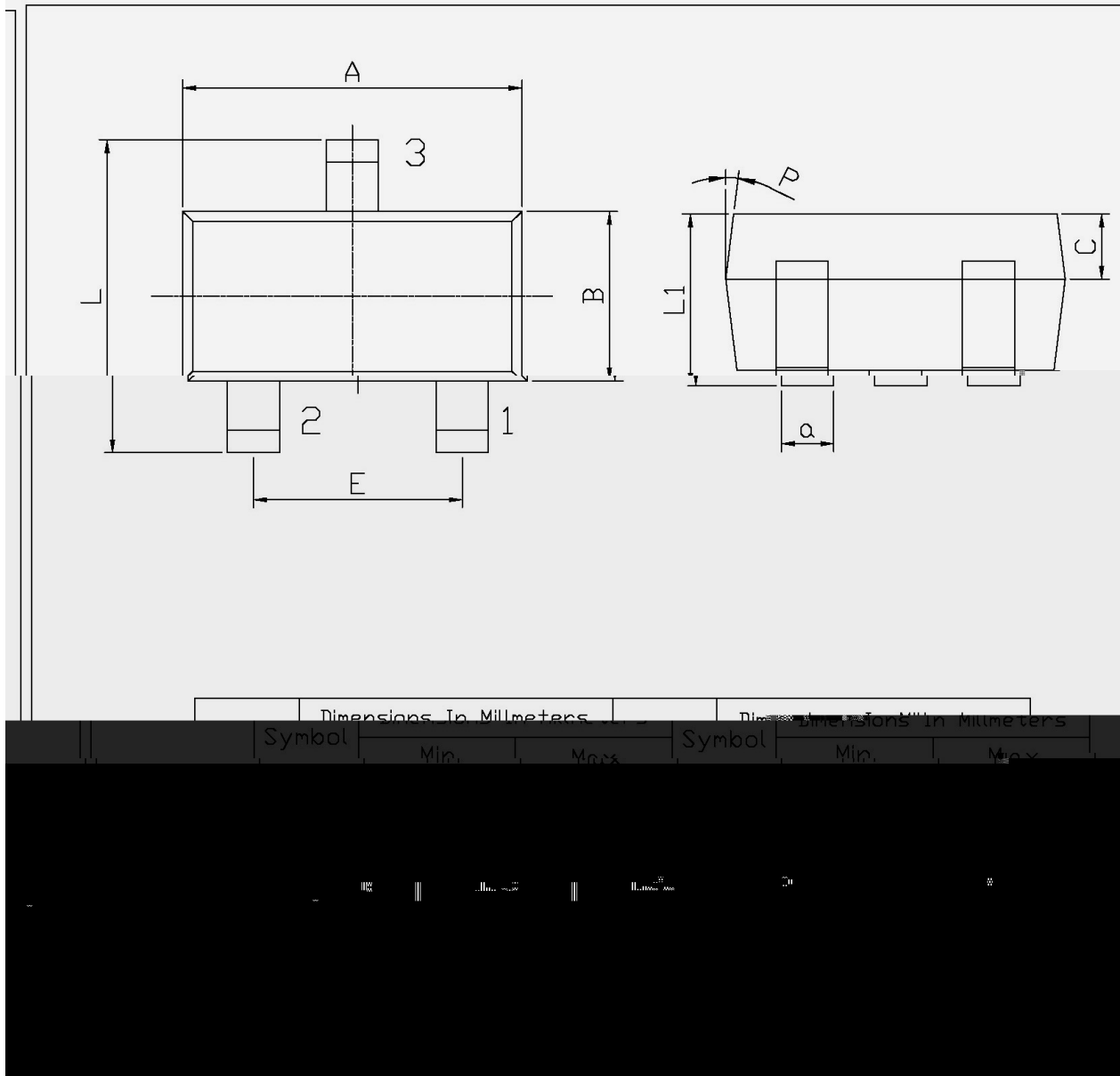
电气特性 / Electrical Characteristic Curve



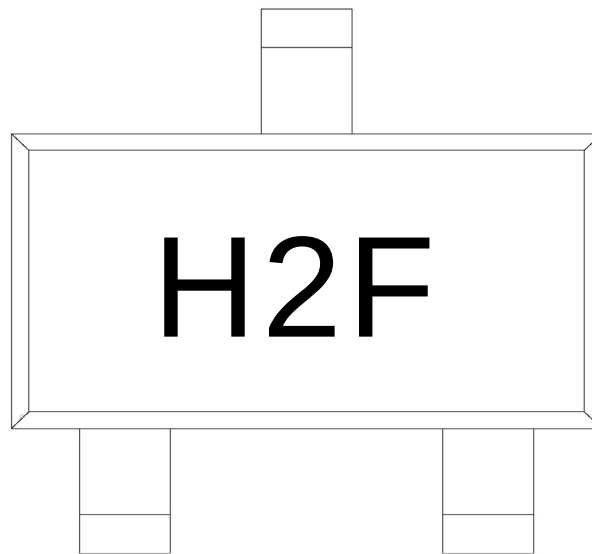
Ⓢ Ⓔ Ⓡ Ⓛ Ⓜ / Package Dimensions

STU-323

单位; 单位



1. 符号 / Marking Instructions



H

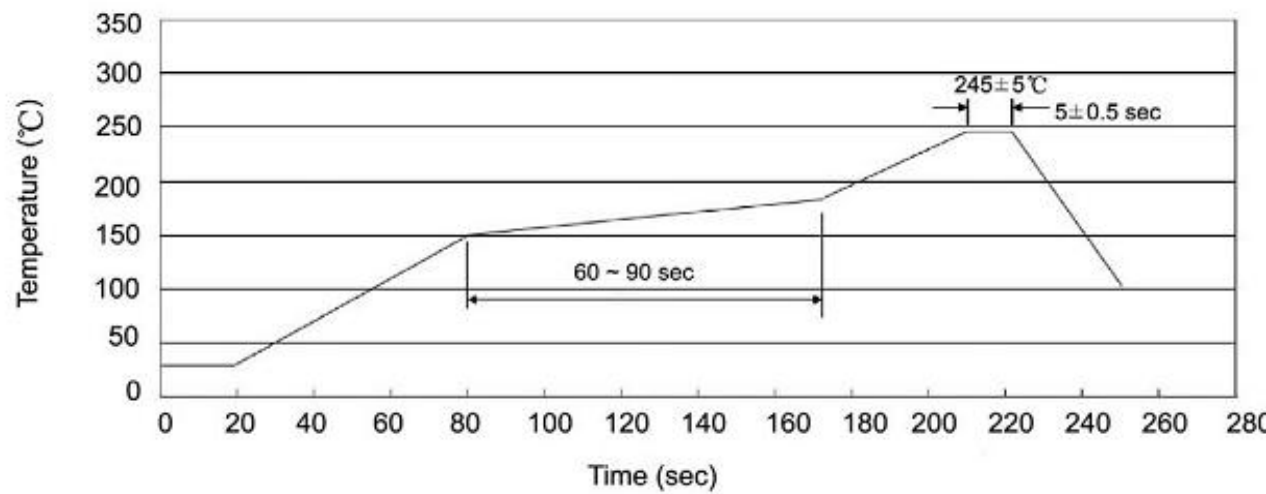
2F

Note:

H: Company Code.

2F: Product Type.

热应力测试 / Whp shudwxuh Suriloh i ru LU Uhior z Vroghulqj+Se0luhh,



Note:

- | | | | |
|---|-----------|-------------|---|
| 1 | 150 ~ 180 | 60 ~ 90sec; | 1.Preheating:150~180 , 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. |

热阻测试 / Resistance to Soldering Heat Test Conditions

260±5 10±1 sec. Temp.:260±5℃ Time:10±1 sec

封装 / Packaging SPEC.

/ REEL

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	Units/Reel 只/卷盘	Reels/Inner Box 卷盘/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Reel	Inner Box 盒	Outer Box 箱
SOT-323	3,000	10	30,000	6	180,000	7" ×8	180×120×180	390×385×205

注意事项 / Notices