

8050W(BR3DA8050W)

Rev.C Feb.-2015

描述 / Descriptions

SOT-323 塑封封装 NPN 半导体三极管。Silicon NPN transistor in a SOT-323 Plastic Package.

特征 / Features

与 8550W(BR3CA8550W)互补。

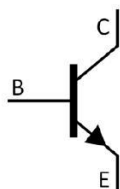
Complementary pair with 8550W(BR3CA8550W).

用途 / Applications

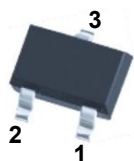
用于功率放大电路。

Power amplifier applications.

内部等效电路 / Equivalent Circuit



引脚排列 / Pinning



PIN1 : Emitter

PIN 2 : Base

PIN 3 : Collector

印章代码 / Marking

h_{FE} Classifications Symbol	B	C	D
h_{FE} Range	85~160	120~200	160~300
Marking	HY1B	HY1C	HY1D


极限参数 / Absolute Maximum Ratings(Ta=25°C)

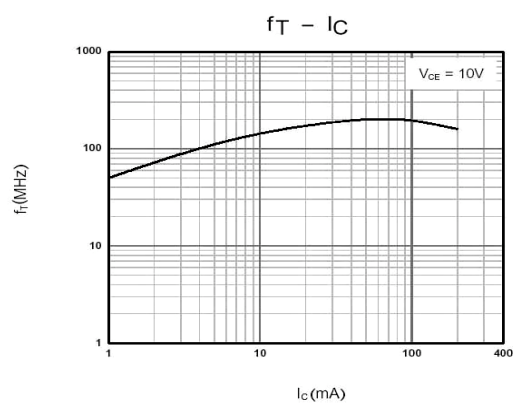
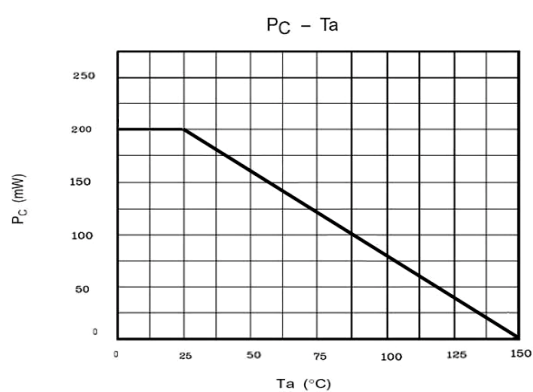
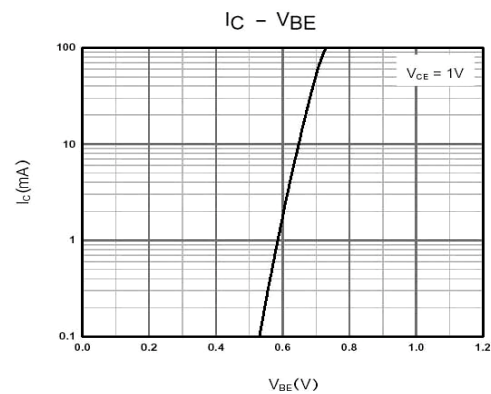
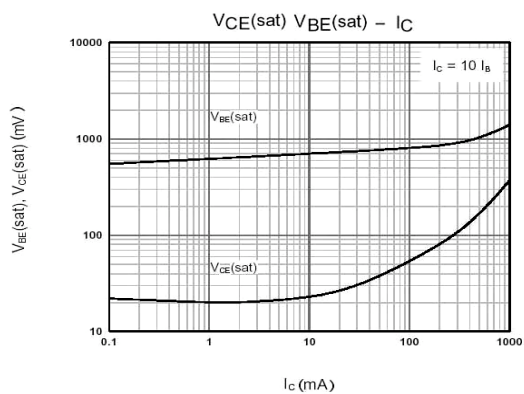
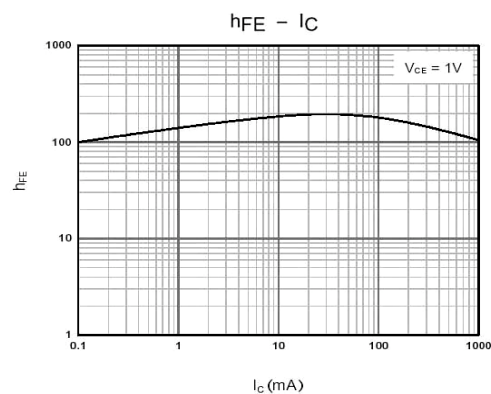
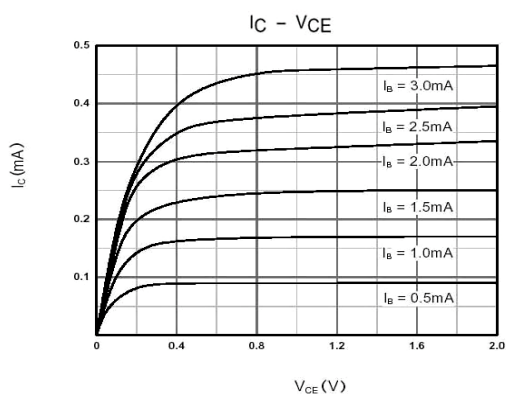
参数 Parameter	符号 Symbol	数值 Rating	单位 Unit
Collector to Base Voltage	V_{CBO}	40	V
Collector to Emitter Voltage	V_{CEO}	25	V
Emitter to Base Voltage	V_{EBO}	5.0	V
Collector Current - Continuous	I_C	1.5	A
Base Current - Continuous	I_B	0.5	A
Collector Power Dissipation	P_C	200	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	-55~150	°C

电性能参数 / Electrical Characteristics(Ta=25°C)

参数 Parameter	符号 Symbol	测试条件 Test Conditions	最小值 Min	典型值 Typ	最大值 Max	单位 Unit
Collector to Base Breakdown Voltage	V_{CBO}	$I_C=0.1mA$ $I_E=0$	40			V
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C=2.0mA$ $I_B=0$	25			V
Emitter to Base Breakdown Voltage	V_{EBO}	$I_E=0.1mA$ $I_C=0$	6.0			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=35V$ $I_E=0$			0.1	μA
Emitter Base Cut-Off Current	I_{EBO}	$V_{EB}=6.0V$ $I_C=0$			0.1	μA
DC Current Gain ₍₁₎	$h_{FE(1)}$	$V_{CE}=1.0V$ $I_C=100mA$	85		300	
DC Current Gain ₍₂₎	$h_{FE(2)}$	$V_{CE}=1.0V$ $I_C=800mA$	40			
DC Current Gain ₍₃₎	$h_{FE(3)}$	$V_{CE}=1.0V$ $I_C=5.0mA$	45			
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=800mA$ $I_B=80mA$		0.28	0.5	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=800mA$ $I_B=80mA$		0.98	1.2	V
Collector-Emitter Voltage	V_{BE}	$V_{CE}=1.0V$ $I_C=10mA$		0.66	1.0	V
Transition Frequency	f_T	$V_{CE}=10V$ $I_C=50mA$	100	190		MHz
Output Capacitance	C_{ob}	$V_{CB}=10V$ $I_E=0$ $f=1.0MHz$		9.0		pF



电参数曲线图 / Electrical Characteristic Curve

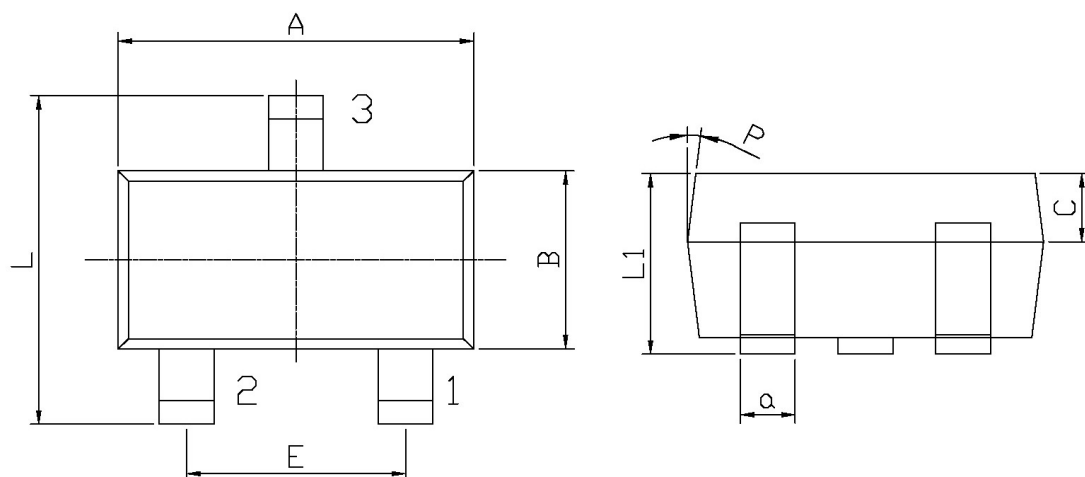




外形尺寸图 / Package Dimensions

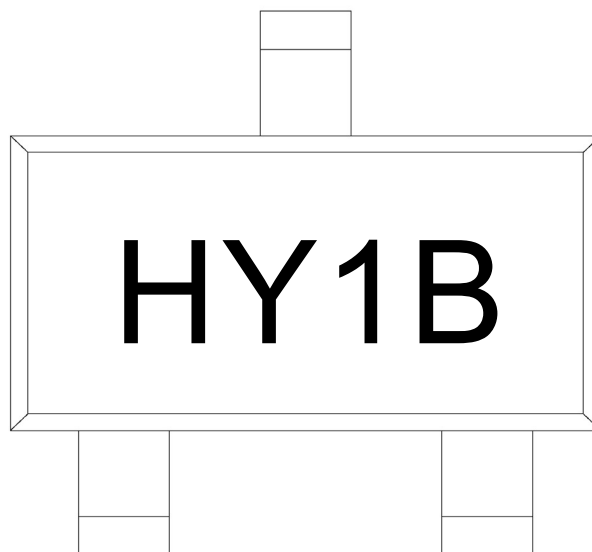
SOT-323

单位: mm



Symbol	Dimensions In Millimeters		Symbol	Dimensions In Millimeters	
	Min	Max		Min	Max
A	1.95	2.35	C	0.30	0.50
L	2.00	2.2	L1	0.85	1.15
E	1.20	1.40	a	0.20	0.40
B	1.15	1.35	P	7°	

印章说明 / Marking Instructions



说明：

H： 为公司代码

Y1： 为型号代码

B： 为 h_{FE} 分档代码

Note:

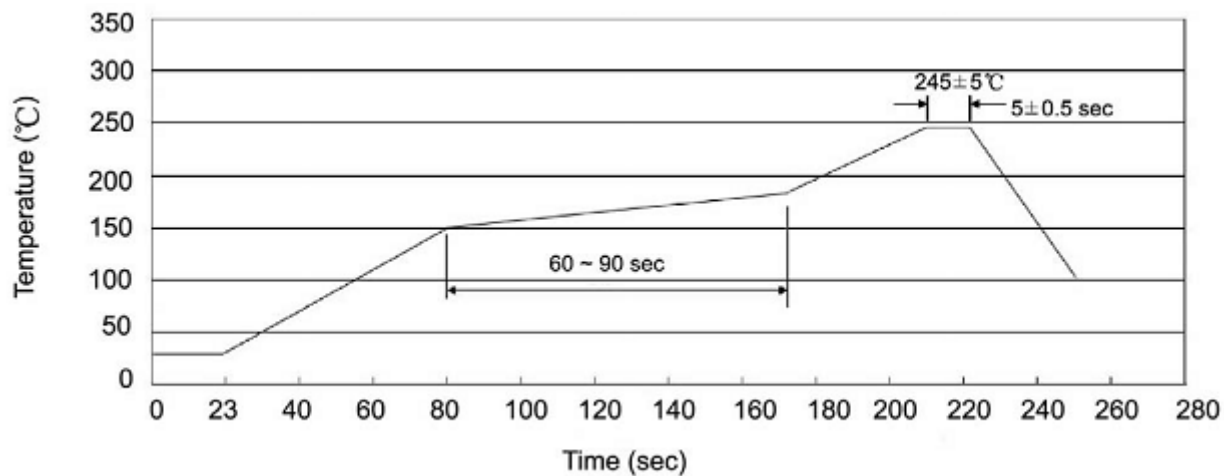
H: Company Code.

Y1: Product Type.

B : h_{FE} Classifications Symbol



回流焊温度曲线图(无铅) / Temperature Profile for IR Reflow Soldering(Pb-Free)



说明：

- 1、预热温度 $25 \sim 150^{\circ}\text{C}$ ，时间 60 ~ 90sec;
- 2、峰值温度 $245 \pm 5^{\circ}\text{C}$ ，时间持续为 $5 \pm 0.5\text{sec}$;
- 3、焊接制程冷却速度为 $2 \sim 10^{\circ}\text{C}/\text{sec}$.

Note:

- 1.Preheating: $25 \sim 150^{\circ}\text{C}$, Time: 60~90sec.
- 2.Peak Temp.: $245 \pm 5^{\circ}\text{C}$, Duration: $5 \pm 0.5\text{sec}$.
3. Cooling Speed: $2 \sim 10^{\circ}\text{C}/\text{sec}$.

耐焊接热试验条件 / Resistance to Soldering Heat Test Conditions

温度： $270 \pm 5^{\circ}\text{C}$

时间： $10 \pm 1\text{ sec}$.

Temp.: $270 \pm 5^{\circ}\text{C}$

Time: $10 \pm 1\text{ sec}$

包装规格 / Packaging SPEC.

卷盘包装 / 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/盒	Reel	Inner Box 盒	Outer Box 箱
SOT-323	3,000	10	30,000	8	240,000	7" × 8	180×120×180	385×257×392

使用说明 / Notices