

BRD8050WS

Rev.B Oct.-2021



ATA SHEET

A	9018-9-14				
B	2021-10-26	4			

/ Descriptions

SOT-363 塑封封装双 NPN 半导体三极管。
Double silicon NPN transistor in a SOT-363 Plastic Package.

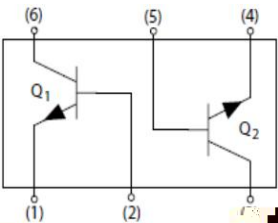
/ Features

与 BRD8550WS 互补。无卤产品。
Complementary pair with BRD8550WS. HF Product.

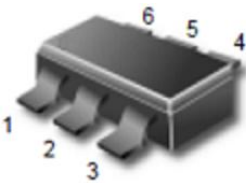
/ Applications

用于功率放大电路。
Power amplifier application.

/ Equivalent Circuit



/ Pinning



PIN 1、 4 : Emitter PIN 2、 5 : Base PIN 3、 6 : Collector

/ h_{FE} Classifications & Marking

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

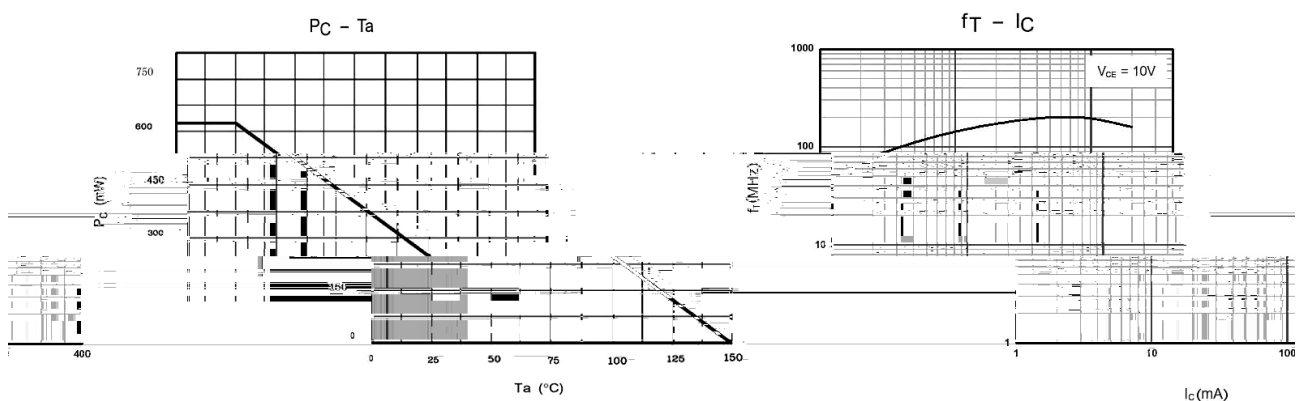
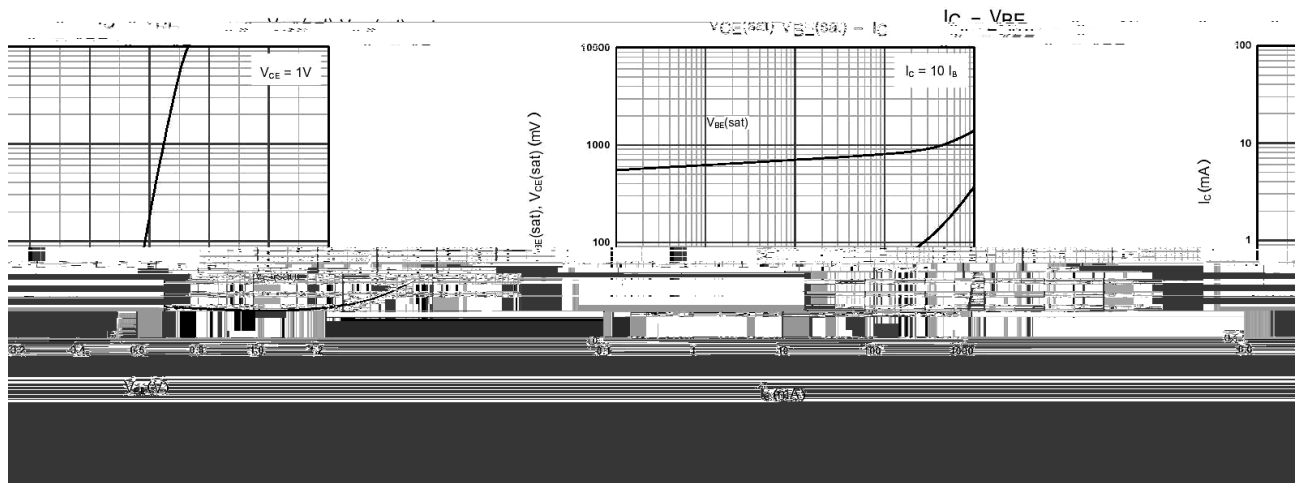
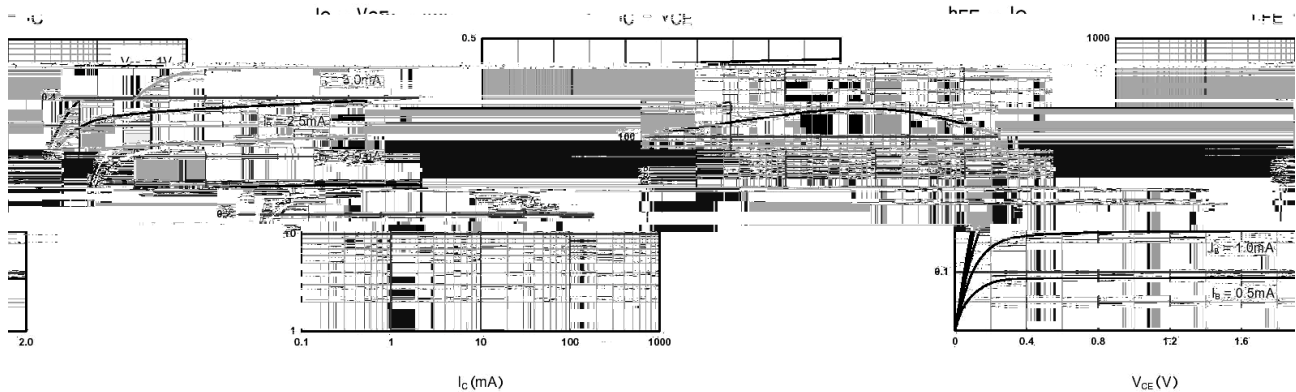
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	40	V
Collector to Emitter Voltage	V_{CEO}	25	V
Emitter to Base Voltage	V_{EBO}	6	V
Collector Current	I_C	1.5	A
Collector Power Dissipation	P_C	625	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	-55~150	°C

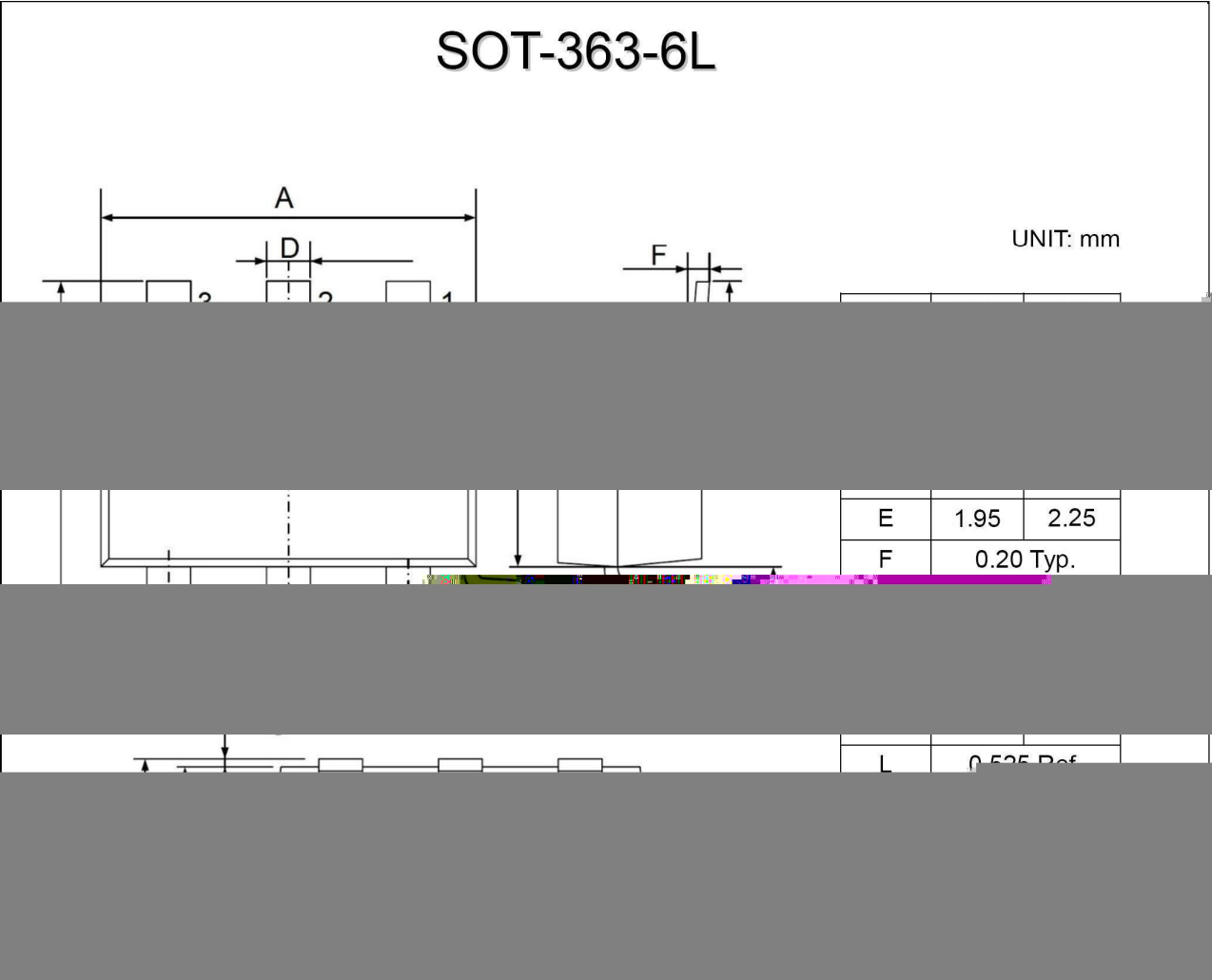
/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to 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 Cut-Off Current	I_{EBO}	$V_{EB}=6.0V$ $I_C=0$			0.1	μA
DC Current Gain	$h_{FE(1)}$	$V_{CE}=1.0V$ $I_C=100mA$	85		300	
	$h_{FE(2)}$	$V_{CE}=1.0V$ $I_C=800mA$	40			
	$h_{FE(3)}$	$V_{CE}=1.0V$ $I_C=5.0mA$	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
Base-Emitter On Voltage	$V_{BE(on)}$	$V_{CE}=1.0V$ $I_C=10mA$		0.66	1.0	V
Transition Frequency	f_T	$I_C=50mA$ $V_{CE}=10V$	100	190		MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=5.0V$ $I_E=0$ $f=1.0MHz$		9.0		pF

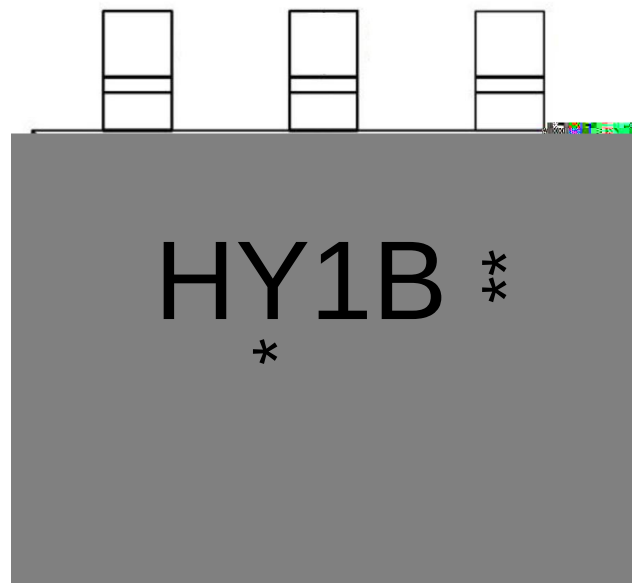
/ Electrical Characteristic Curve



/ Package Dimensions



/ Marking Instructions



● " 1 "

H

Y1

B h_{FE}

***;

Note:

● "1" Pin

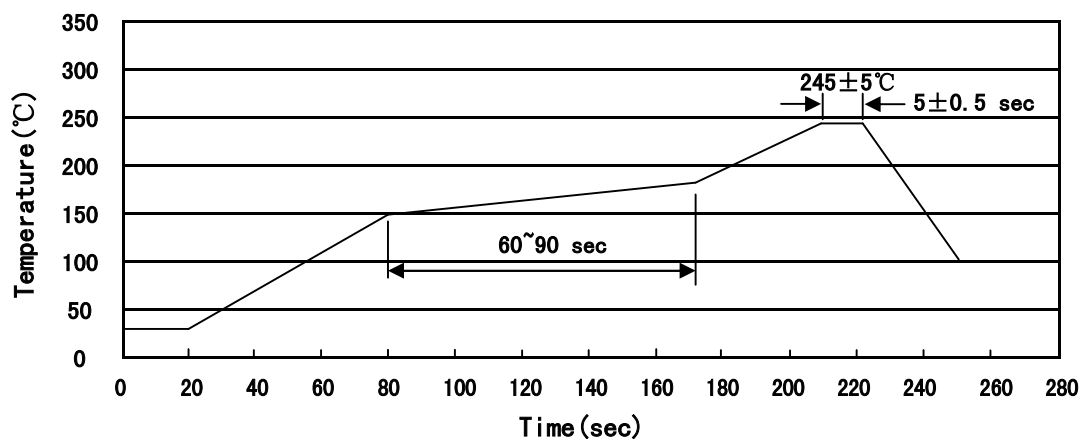
H: Company Code.

Y1 Product Type Code

B: h_{FE} Classifications Symbol Code.

***: Lot No. Code, code change with Lot No.

() / Temperature Profile for IR Reflow Soldering(Pb-Free)



Note:

- | | | | | | |
|---|-------|-----|-----------|--------|--|
| 1 | 150 | 180 | 60 | 90sec; | 1.Preheating:150~180°C, Time:60~90sec. |
| 2 | 245±5 | | 5±0.5sec; | | 2.Peak Temp.:245±5°C, Duration:5±0.5sec. |
| 3 | | 2 | 10°C/sec. | | 3. Cooling Speed: 2~10°C/sec. |

/ Resistance to Soldering Heat Test Conditions

260±5°C

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)		
	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-363	3,000	10	30,000	6	180,000	7" x8	180×120×180	390×385×205

/ Notices