

**/ Descriptions**

SOT-89 PNP Silicon PNP transistor in a SOT-89 Plastic Package.

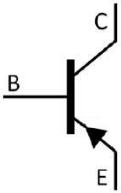
**/ Features**

8050T  
Complementary pair with 8050T, HF Product.

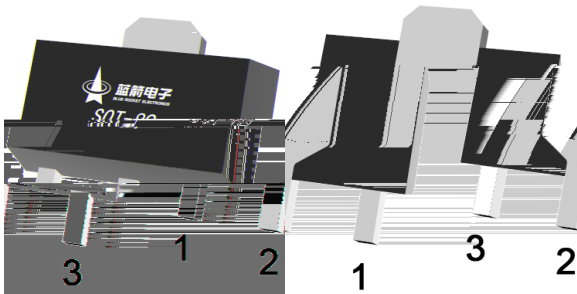
**/ Applications**

Power amplifier applications.

**/ Equivalent Circuit**



**/ Pinning**



PIN1 Base      PIN 2 Collector      PIN 3 Emitter

**/ Marking**

h <sub>FE</sub> Classifications Symbol	B	C	D
h <sub>FE</sub> Range	85 160	120 200	160 300
Marking	HY2B <sup>*</sup>	HY2C <sup>*</sup>	HY2D <sup>*</sup>

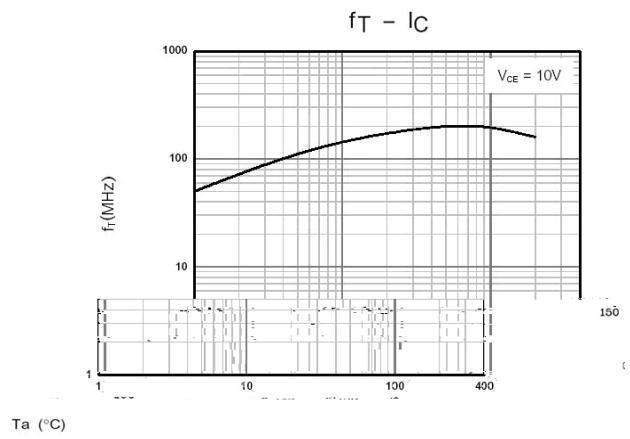
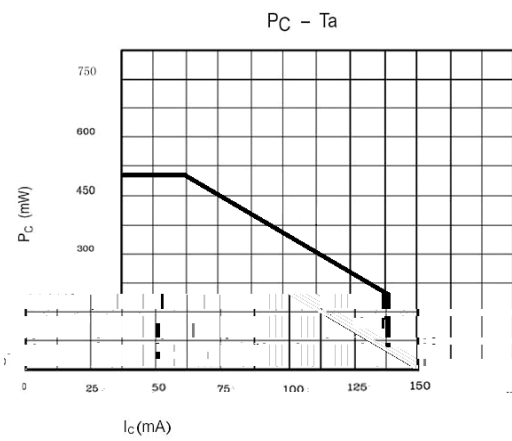
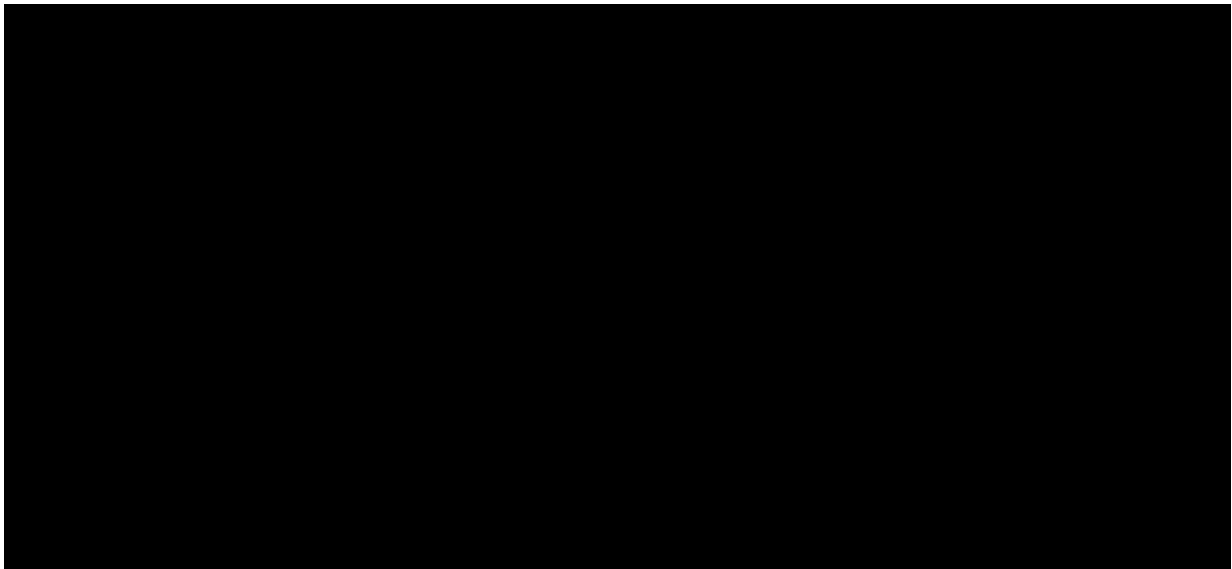
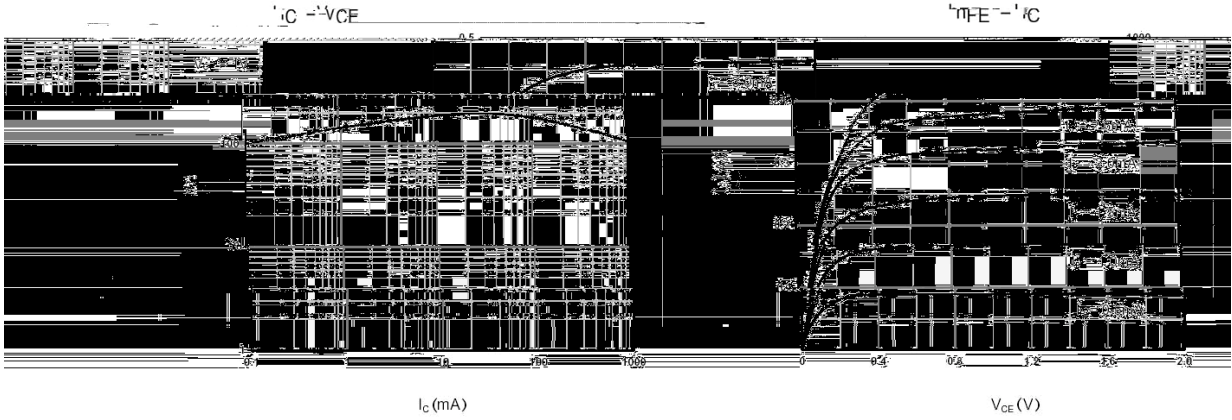
**/ Absolute Maximum Ratings(Ta=25 )**

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V <sub>CB0</sub>	-40	V
Collector to Emitter Voltage	V <sub>CEO</sub>	-25	V
Emitter to Base Voltage	V <sub>EBO</sub>	-6.0	V
Collector Current - Continuous	I <sub>C</sub>	-1.5	A
Collector Base - Continuous	I <sub>B</sub>	-0.5	A
Collector Power Dissipation	P <sub>C</sub>	500	mW
Junction Temperature	T <sub>j</sub>	150	
Storage Temperature Range	T <sub>stg</sub>	-55 150	

**/ Electrical Characteristics(Ta=25 )**

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	V <sub>CB0</sub>	I <sub>C</sub> =-0.1mA I <sub>E</sub> =0	-40			V
Collector to Emitter Breakdown Voltage	V <sub>CEO</sub>	I <sub>C</sub> =-2.0mA I <sub>B</sub> =0	-25			V
Emitter to Base Breakdown Voltage	V <sub>EBO</sub>	I <sub>E</sub> =-0.1mA I <sub>C</sub> =0	-6.0			V
Collector Cut-Off Current	I <sub>CB0</sub>	V <sub>CB</sub> =-35V I <sub>E</sub> =0			-0.1	μA
Emitter Base Cut-Off Current	I <sub>EBO</sub>	V <sub>EB</sub> =-6.0V I <sub>C</sub> =0			-0.1	μA
DC Current Gain	h <sub>FE(1)</sub>	V <sub>CE</sub> =-1.0V I <sub>C</sub> =-100mA	85		300	
	h <sub>FE(2)</sub>	V <sub>CE</sub> =-1.0V I <sub>C</sub> =-800mA	40			
	h <sub>FE(3)</sub>	V <sub>CE</sub> =-1.0V I <sub>C</sub> =-5.0mA	45			
Collector to Emitter Saturation Voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =-800mA I <sub>B</sub> =-80mA		-0.28	-0.5	V
Emitter to Base Saturation Voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> =-800mA I <sub>B</sub> =-80mA		-0.98	-1.2	V
Emitter to Base Voltage	V <sub>BE</sub>	V <sub>CE</sub> =-1.0V I <sub>C</sub> =-10mA		-0.66	-1.0	V
Transition Frequency	f <sub>T</sub>	V <sub>CE</sub> =-10V I <sub>C</sub> =-50mA	100	200		MHz
Collector Output Capacitance	C <sub>ob</sub>	V <sub>CB</sub> =-10V I <sub>E</sub> =0 f=1.0MHz		15		pF

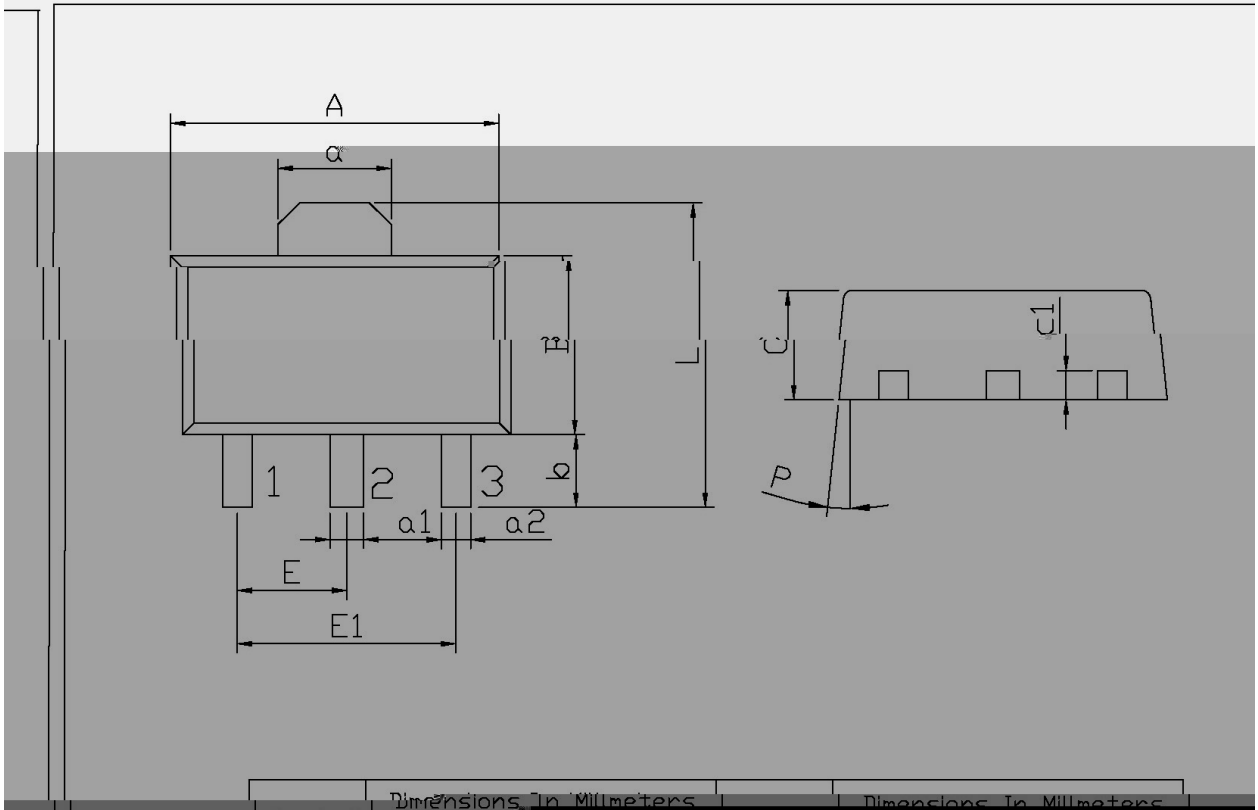
/ Electrical Characteristic Curve



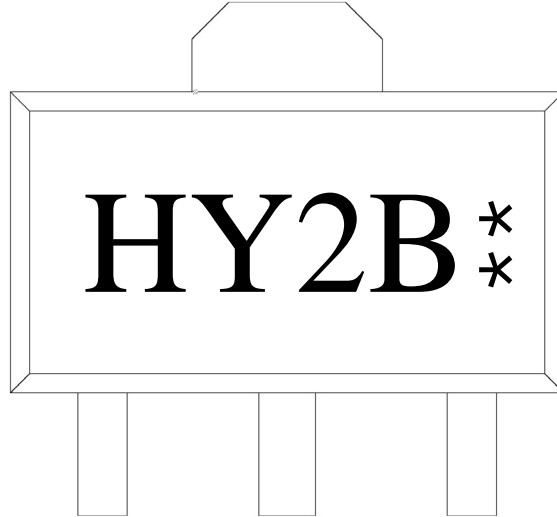
/ Package Dimensions

8550T-89

单位: mm



/ Marking Instructions



H

Y2

B             $h_{FE}$

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Note:

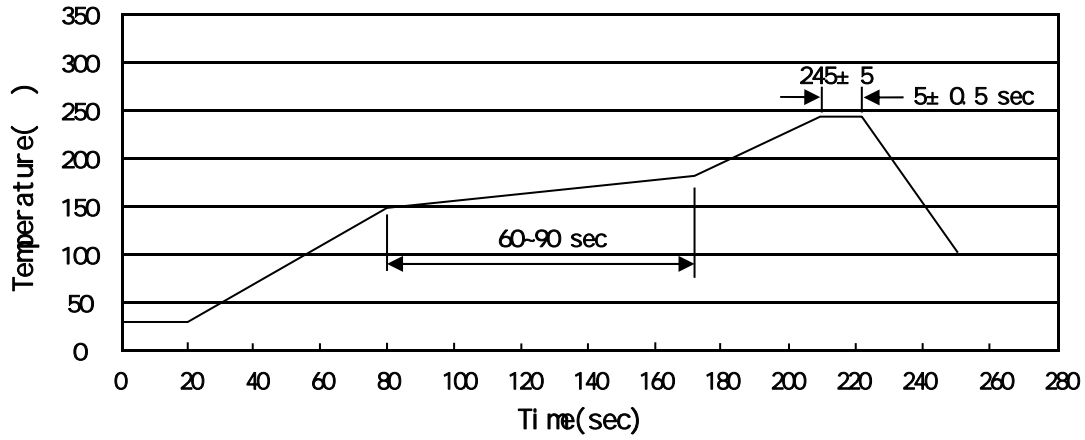
H:            Company Code

Y2:          Product Type

B             $h_{FE}$  Classifications Symbol

\*\* :          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 , 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 <sup>3</sup> )		
	Units/Reel /	Reels/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Reel	Inner Box	Outer Box
SOT-89	1,000	7	7,000	6	42,000	7 x12	180x120x180	390x385x205

/ Notices