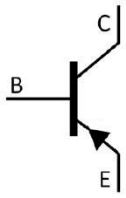
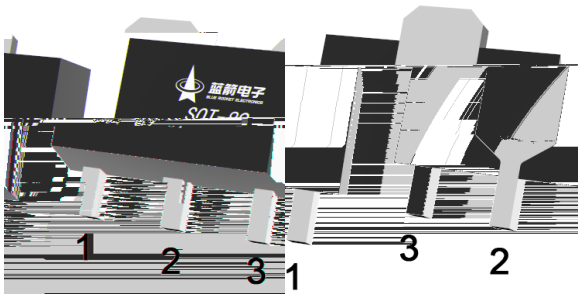
SOT-89 PNP Silicon PNP transistor in a SOT-89 Plastic Package.

8050T

Complementary pair with 8050T, HF Product.

Power amplifier applications.



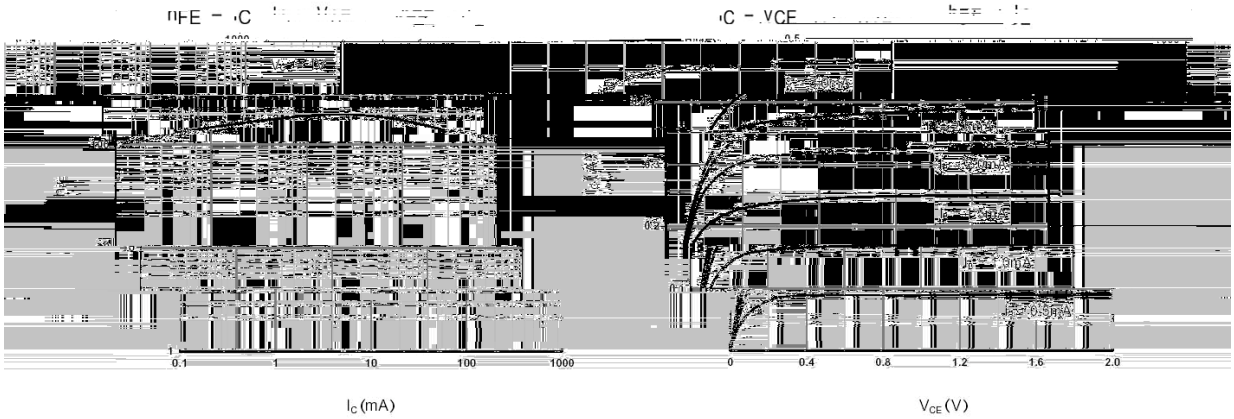



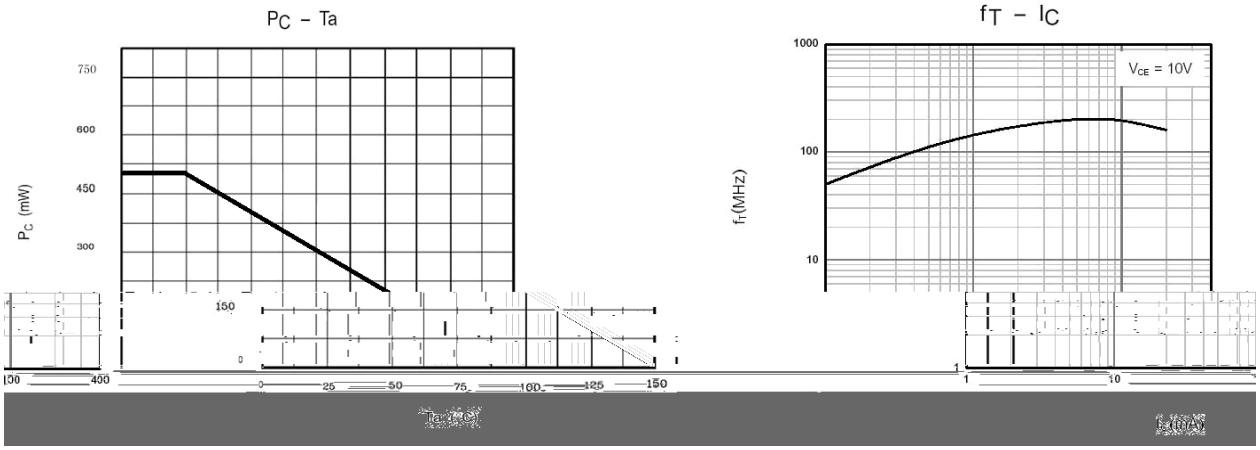

PIN1 Base PIN 2 Collector PIN 3 Emitter

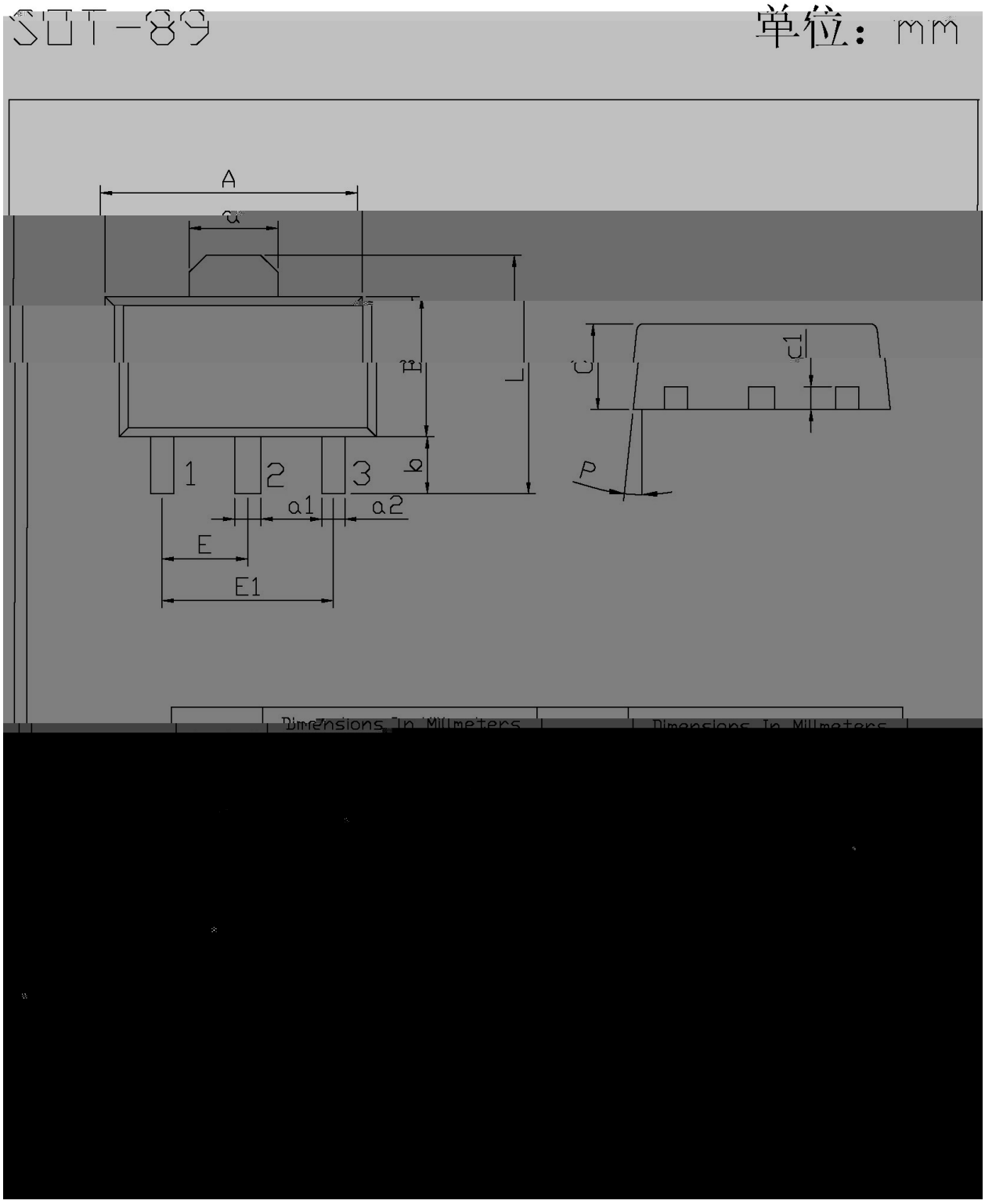
| $h_{FE}$ Classifications Symbol | B | C | D |
|---|---|---|---|
| $h_{FE}$ Range | 85 160 | 120 200 | 160 300 |
| Marking | HY2B** | HY2C** | HY2D** |

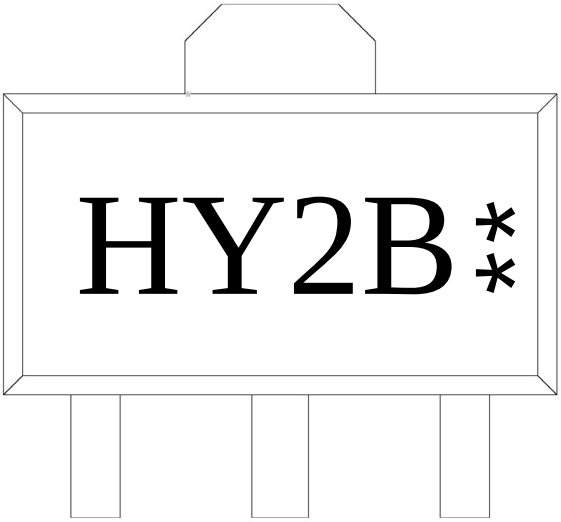
| Parameter | Symbol | Rating | Unit |
|---|---|---|---|
| Collector to Base Voltage | $V_{CBO}$ | -40 | V |
| Collector to Emitter Voltage | $V_{CEO}$ | -25 | V |
| Emitter to Base Voltage | $V_{EBO}$ | -6.0 | V |
| Collector Current - Continuous | $I_C$ | -1.5 | A |
| Collector Base - Continuous | $I_B$ | -0.5 | A |
| Collector Power Dissipation | $P_C$ | 500 | mW |
| Junction Temperature | $T_j$ | 150 | |
| Storage Temperature Range | $T_{stg}$ | -55 150 | |

| 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 | A |
| Emitter Base Cut-Off Current | $I_{EBO}$ | $V_{EB}$=-6.0V $I_C$=0 | | | -0.1 | A |
| 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 to Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C$=-800mA $I_B$=-80mA | | -0.28 | -0.5 | V |
| Emitter to Base Saturation Voltage | $V_{BE(sat)}$ | $I_C$=-800mA $I_B$=-80mA | | -0.98 | -1.2 | V |
| Emitter to Base 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 | 200 | | MHz |
| Collector Output Capacitance | $C_{ob}$ | $V_{CB}$=-10V $I_E$=0 f=1.0MHz | | 15 | | pF |


0.1
1
10
100
1000
0
0.4
0.8
1.2
1.6
2.0
$I_C$ (mA)
$V_{CE}$ (V)


$P_C$ – Ta
$P_C$ (mW)
750
600
450
300
150
0
100
400
0
25
50
75
100
125
150
$f_T$ – $I_C$
$V_{CE}$ = 10V
$f_T$(MHz)
1000
100
10
1
10


SOT-89
单位：mm
A
a
B
L
C
d
b
1
2
3
a1
a2
E
E1
P
Dimensions In Millmeters
Dimensions In Millmeters




H

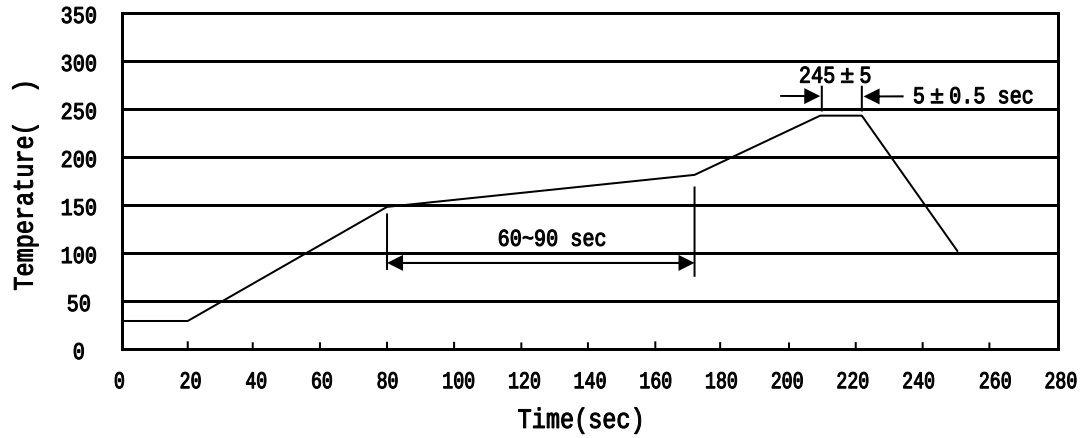
Y2

B $h_{FE}$

**

Note:

| | |
|---|---|
| H: | Company Code |
| Y2: | Product Type |
| B | $h_{FE}$ Classifications Symbol |
| **: | Lot No. Code, code change with Lot No |




| | | | |
|---|---|---|---|
| | | 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. | |

| | | | |
|---|---|---|---|
| 260±5 | 10±1 sec. | Temp.:260±5 | Time:10±1 sec |

/ REEL

| Package Type | Units | | | | | Dimension | | (unit mm³) |
|---|---|---|---|---|---|---|---|---|
| | 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 ×12 | 180×120×180 | 390×385×205 |