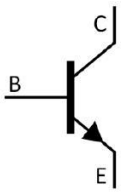
TO-92 NPN Silicon NPN transistor in a TO-92 Plastic Package.

PC, IC , S8550A
High PC and IC, complementary pair with S8550A.

Amplifier of portable radios in class B push-pull operation.






PIN1 Base6 PIN 2

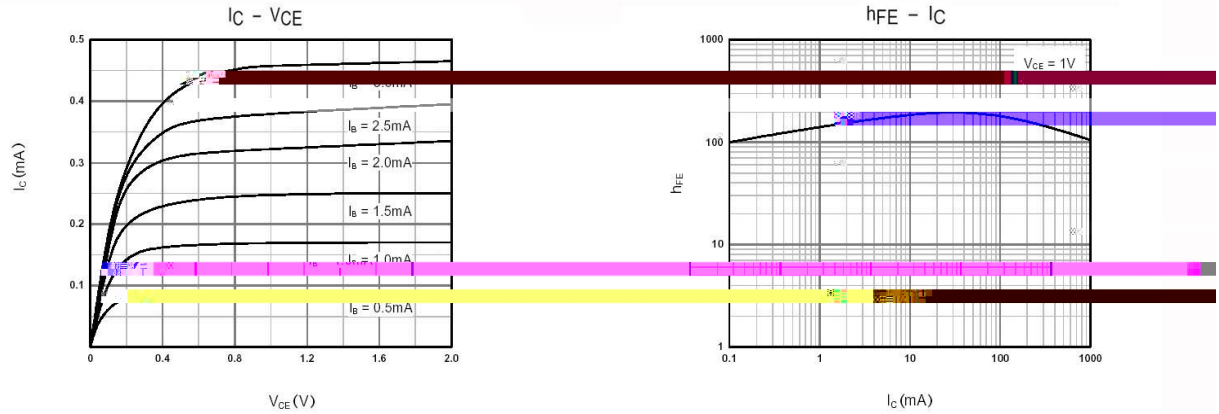
## / Absolute Maximum Ratings(Ta=25 )

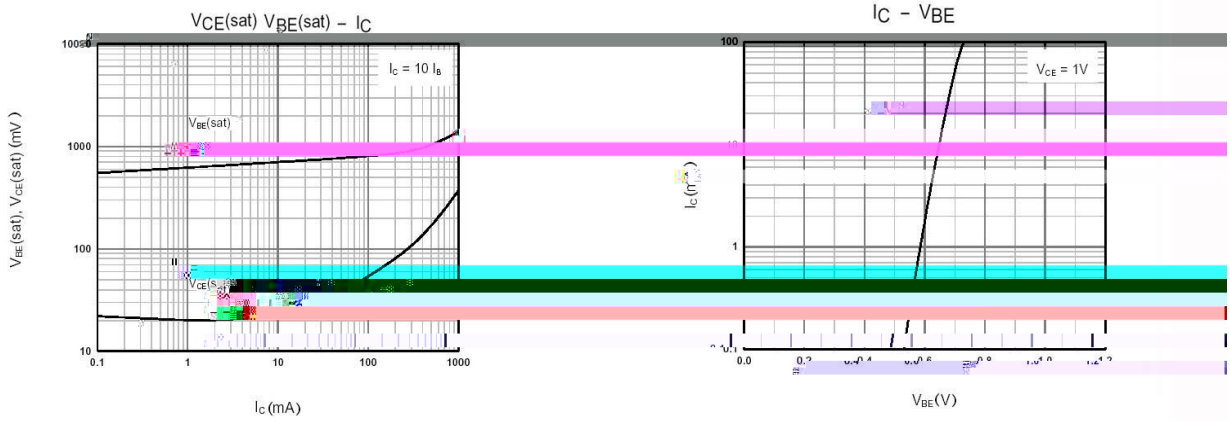
| Parameter | Symbol | Rating | Unit |
|---|---|---|---|
| Collector to Base Voltage | $V_{CBO}$ | 40 | V |
| Collector to Emitter Voltage | $V_{CEO}$ | 25 | V |
| Emitter to Base Voltage | $V_{EBO}$ | 6.0 | V |
| Collector Current - Continuous | $I_C$ | 800 | mA |
| Base Current - Continuous | $I_B$ | 200 | mA |
| Collector Power Dissipation | $P_C$ | 625 | mW |
| Junction Temperature | $T_j$ | 150 | |
| Storage Temperature Range | $T_{stg}$ | -55 150 | |

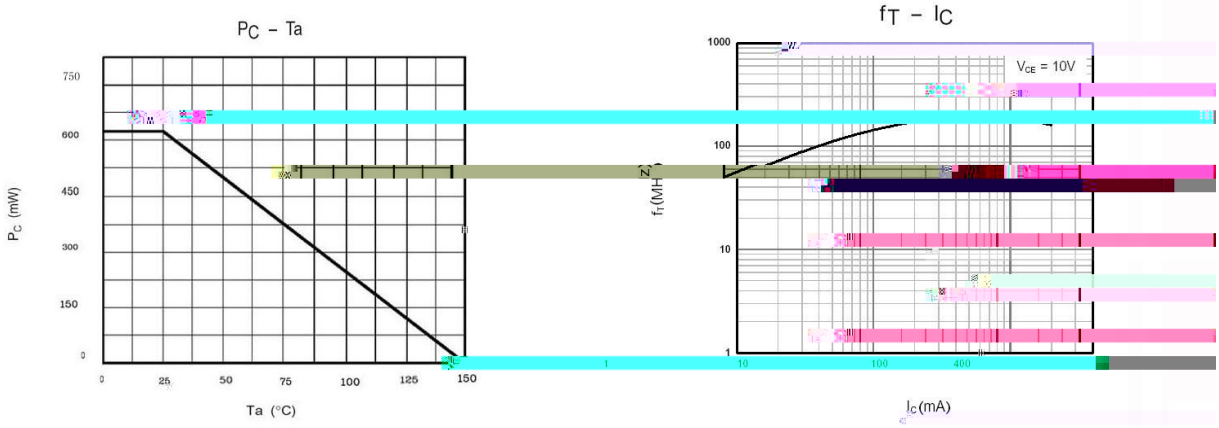
## / Electrical Characteristics(Ta=25 )

| 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 $I_C$=500mA | 40 | | | |
| | $h_{FE(3)}$ | $V_{CE}$=1.0V $I_C$=5.0mA | 45 | | | |
| Collector to Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C$=500mA $I_B$=50mA | | 0.28 | 0.6 | V |
| Base to Emitter Saturation Voltage | $V_{BE(sat)}$ | $I_C$=500mA $I_B$=50mA | | 0.98 | 1.2 | V |
| Base to 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 |
| Collector Output Capacitance | $C_{ob}$ | $V_{CB}$=10V $I_E$=0 f=1.0MHz | | 9.0 | | pF |

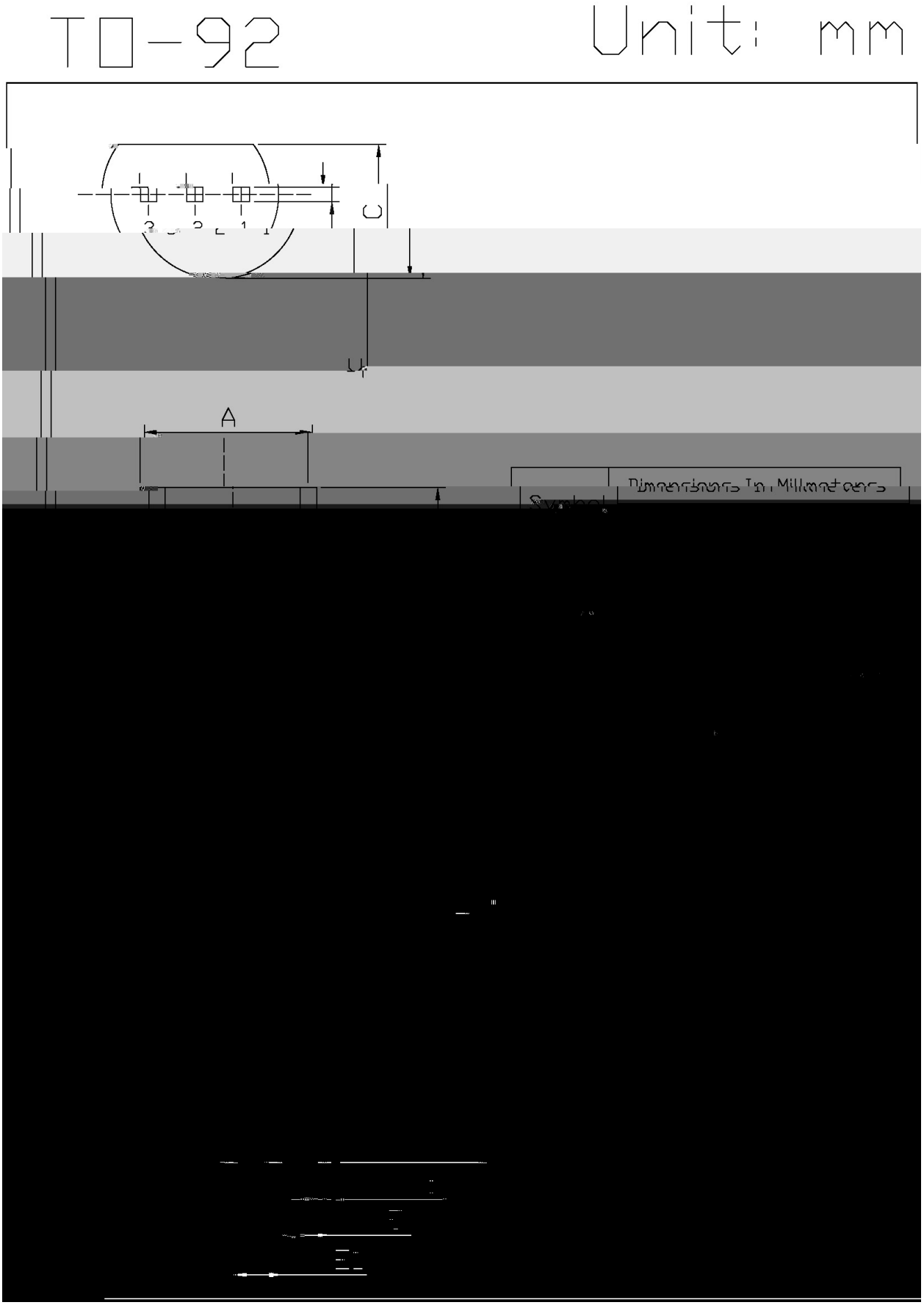
## / Electrical Characteristic Curve



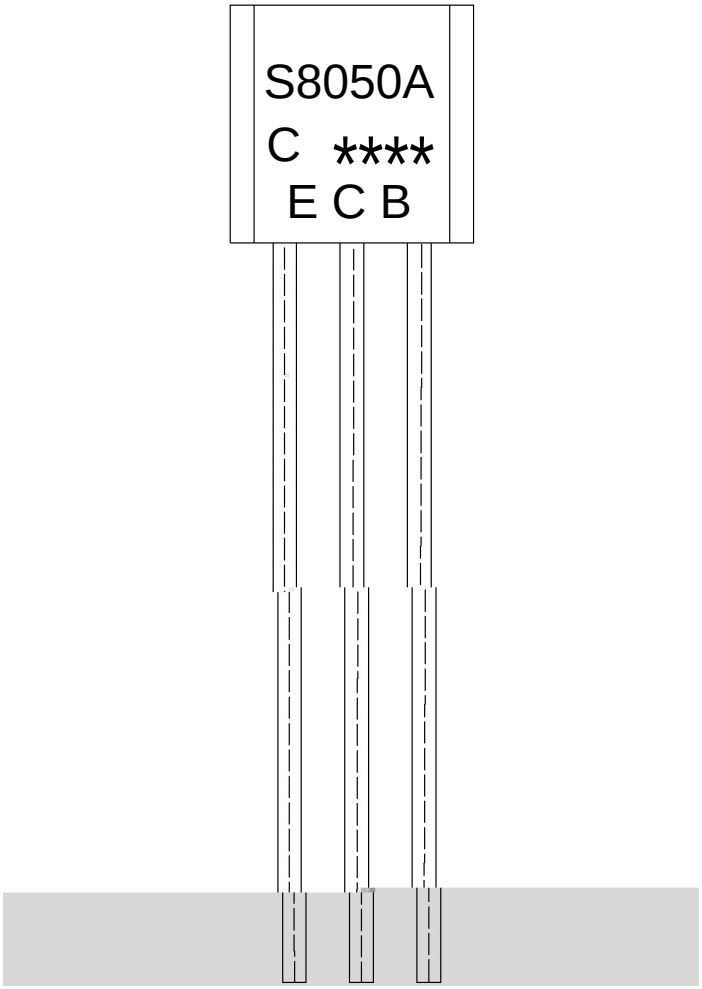



## / Package Dimensions



## / Marking Instructions




S8050A

C: $h_{FE}$

****

ECB

Note:

| | |
|---|---|
| S8050A: | Product Type. |
| C: | $h_{FE}$ Classifications Symbol. |
| ****: | Lot No. Code, code change with Lot No. |
| ECB | PIN Code |

## ( ) / Temperature Profile for Dip Soldering(Pb-Free)



| | | | | | |
|---|---|---|---|---|---|
| | | | | | Note: |
| 1 | 25 | 150 | 60 | 90sec; | 1.Preheating:25~150 , Time:60~90sec. |
| 2 | 255±5 | | | 5±0.5sec; | 2.Peak Temp.:255±5 , Duration:5±0.5sec. |
| 3 | | | 2 | 10 /sec. | 3. Cooling Speed: 2~10 /sec. |

## / Resistance to Soldering Heat Test Conditions

| | | |
|---|---|---|
| 270±5 | 10±1 sec. | Temp.:270±5 - 6L6)(1sgBDq |