



**迈拓电子**  
MAITUO ELECTRONIC

## PBSS4350T

### Descriptions

Silicon PNP transistor in a SOT-23 Plastic Package.

### Features

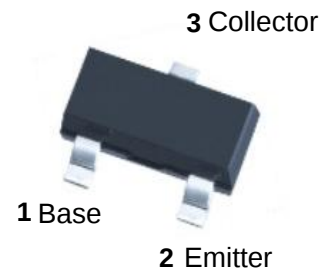
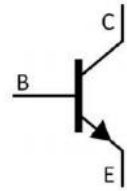
Low  $V_{CE(sat)}$ , high current.

### Applications

General purpose switching and muting

LCD back-lighting

Supply line switching circuits.



### $h_{FE}$ Classifications & Marking

|                |      |
|----------------|------|
| $h_{FE}$ Range | >300 |
| Marking        | HZC  |

SOT23



## Absolute Maximum Ratings(Ta=25°C)

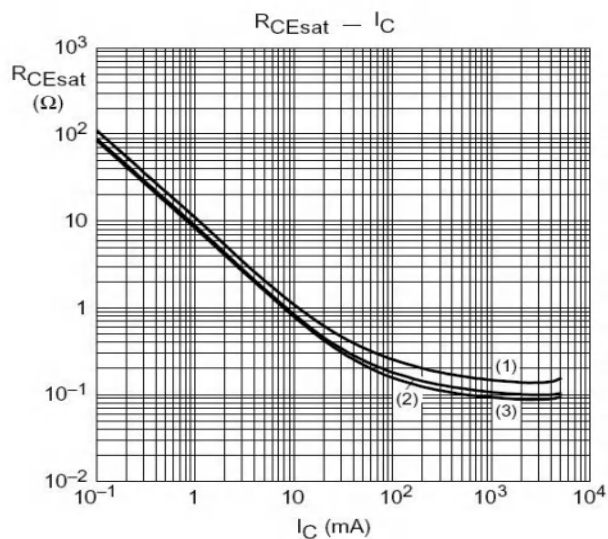
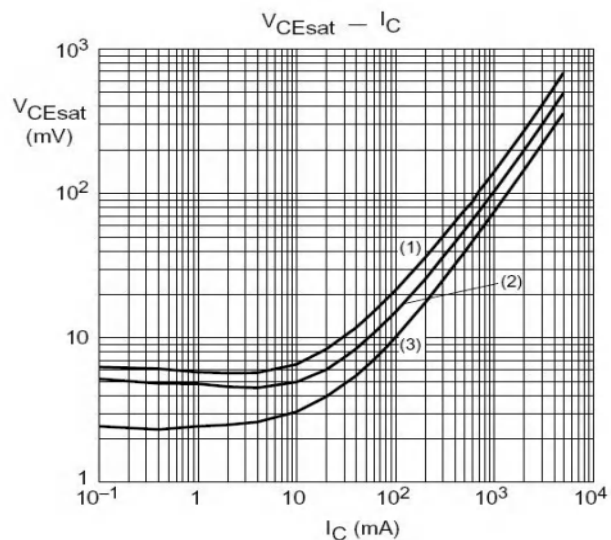
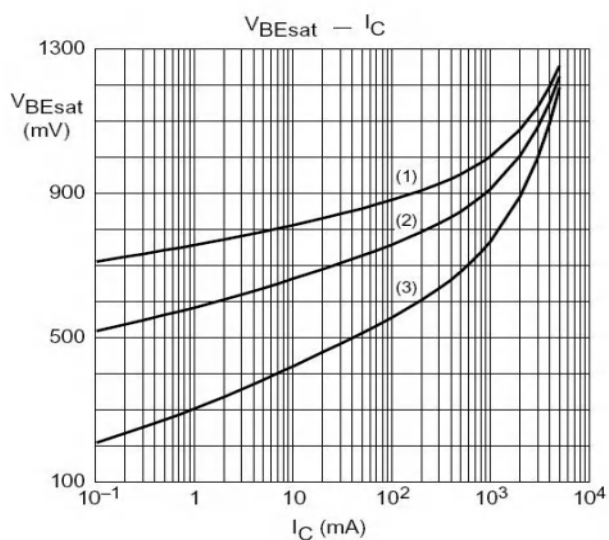
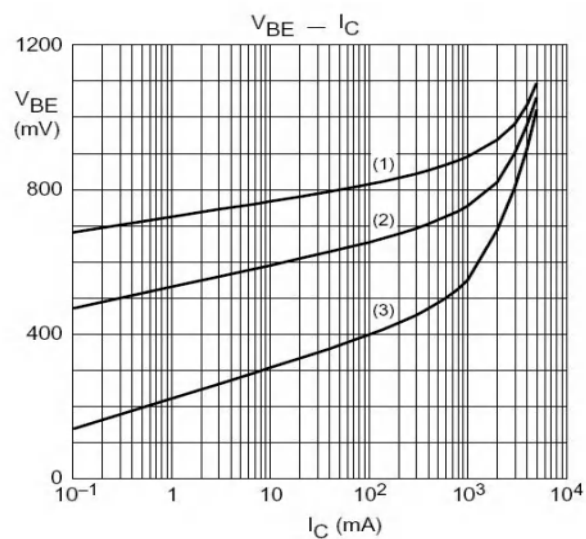
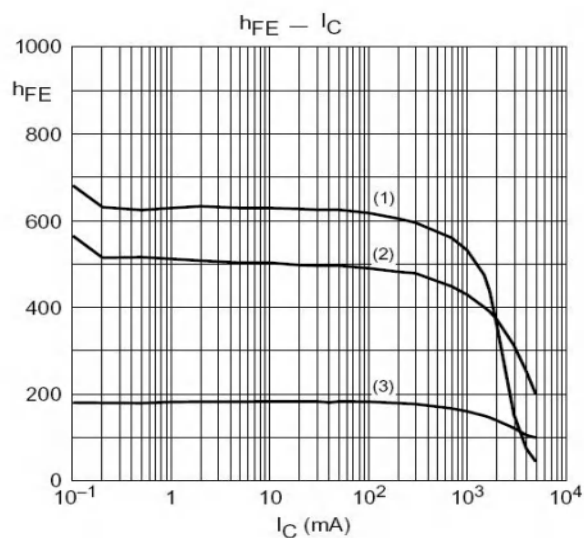
| Parameter                    | Symbol       | Rating  | Unit |
|------------------------------|--------------|---------|------|
| Collector to Base Voltage    | $V_{CBO}$    | 50      | V    |
| Collector to Emitter Voltage | $V_{CEO}$    | 50      | V    |
| Emitter to Base Voltage      | $V_{EBO}$    | 5       | V    |
| Collector Current            | $I_C$        | 2       | A    |
| Peak Collector Current       | $I_{CM}$     | 5       | A    |
| Base Current                 | $I_B$        | 0.5     | A    |
| Total Power Dissipation      | $P_{tot(1)}$ | 300     | mW   |
|                              | $P_{tot(2)}$ | 1.2     | W    |
| Junction Temperature         | $T_j$        | 150     | °C   |
| Storage Temperature Range    | $T_{stg}$    | -65~150 | °C   |

## Electrical Characteristics(Ta=25°C)

| Parameter                            | Symbol            | Test Conditions                                | Min | Typ | Max | Unit |
|--------------------------------------|-------------------|------------------------------------------------|-----|-----|-----|------|
| Collector Cut-Off Current            | $I_{CBO}$         | $V_{CB}=50V \quad I_E=0$                       |     |     | 100 | nA   |
|                                      |                   | $V_{CB}=50V \quad I_E=0 \quad T_j=150^\circ C$ |     |     | 50  | μA   |
| Emitter Cut-Off Current              | $I_{EBO}$         | $V_{EB}=5.0V \quad I_C=0$                      |     |     | 100 | nA   |
| DC Current Gain                      | $h_{FE(1)}$       | $V_{CE}=2.0V \quad I_C=100mA$                  | 300 |     |     |      |
|                                      | $h_{FE(2)}$       | $V_{CE}=2.0V \quad I_C=500mA$                  | 300 |     |     |      |
|                                      | $h_{FE(3)*}$      | $V_{CE}=2.0V \quad I_C=1.0A$                   | 300 |     |     |      |
|                                      | $h_{FE(4)*}$      | $V_{CE}=2.0V \quad I_C=2.0A$                   | 200 |     |     |      |
|                                      | $h_{FE(5)*}$      | $V_{CE}=2.0V \quad I_C=3.0A$                   | 100 |     |     |      |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)(1)}$  | $I_C=500mA \quad I_B=50mA$                     |     |     | 80  | mV   |
|                                      | $V_{CE(sat)(2)*}$ | $I_C=2.0A \quad I_B=100mA$                     |     |     | 280 | mV   |
| Equivalent On-Resistance             | $R_{CE(sat)*}$    | $I_C=2.0A \quad I_B=200mA$                     |     | 100 | 130 | mΩ   |
| Base-Emitter Saturation Voltage      | $V_{BE(sat)*}$    | $I_C=2.0A \quad I_B=100mA$                     |     |     | 1.1 | V    |
|                                      |                   | $I_C=3.0A \quad I_B=300mA$                     |     |     | 1.2 | V    |
| Base-Emitter Voltage                 | $V_{BE(ON)*}$     | $V_{CE}=2.0V \quad I_C=1.0A$                   |     |     | 1.2 | V    |
| Transition Frequency                 | $f_T$             | $V_{CE}=5.0V \quad I_C=100mA \quad f=100MHz$   | 100 |     |     | MHz  |
| Collector Capacitance                | $C_C$             | $V_{CB}=10V \quad I_E=0 \quad f=1.0MHz$        |     |     | 25  | pF   |



## Electrical Characteristic Curve

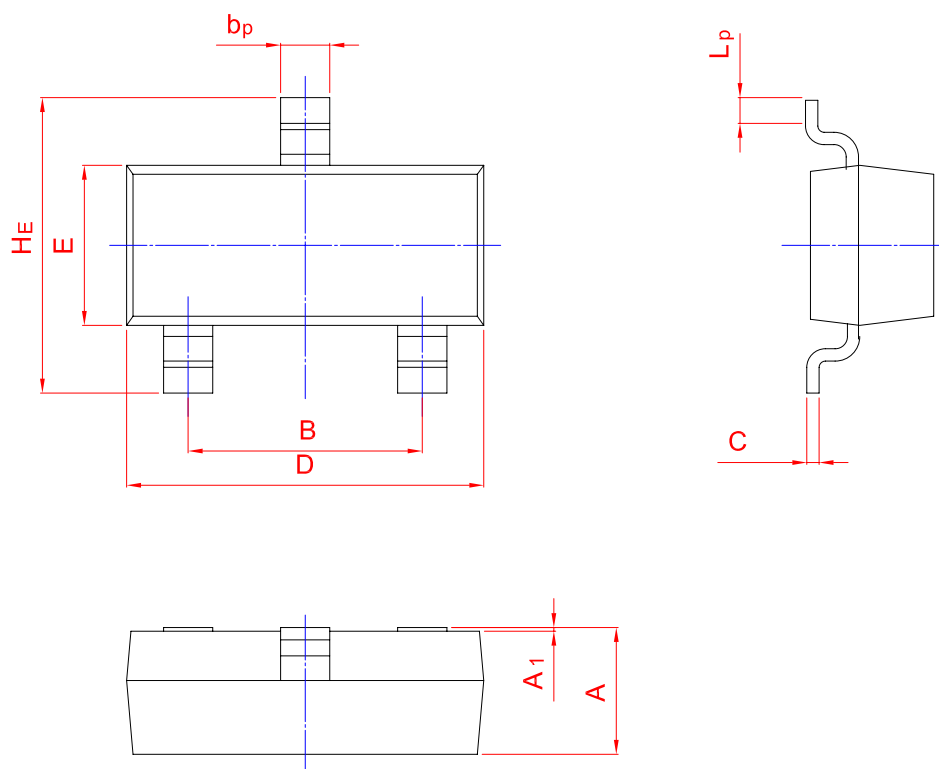
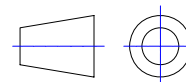




## PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT-23



| UNIT | A            | B            | bp           | C            | D            | E            | HE           | A1             | Lp           |
|------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|----------------|--------------|
| mm   | 1.40<br>0.95 | 2.04<br>1.78 | 0.50<br>0.35 | 0.19<br>0.08 | 3.10<br>2.70 | 1.65<br>1.20 | 3.00<br>2.20 | 0.100<br>0.013 | 0.50<br>0.20 |