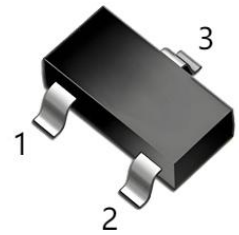


## TRANSISTOR (PNP)

| Parameter | Value | Unit |
|-----------|-------|------|
| $V_{CEO}$ | -25   | V    |
| $I_C$     | -0.5  | A    |

1. BASE
2. EMITTER
3. COLLECTOR



SOT-23

## Features

- Complementary to NPN Transistor S8050
- Power dissipation of 300mW
- High stability and high reliability

## Absolute maximum ratings (Ta=25°C unless otherwise noted)

| Symbol          | Parameter                                   | Value    | Unit |
|-----------------|---------------------------------------------|----------|------|
| $V_{CBO}$       | Collector-base voltage                      | -40      | V    |
| $V_{CEO}$       | Collector-emitter voltage                   | -25      | V    |
| $V_{EBO}$       | Emitter-base voltage                        | -5       | V    |
| $I_C$           | Collector current                           | -0.5     | A    |
| $P_C$           | Collector Power Dissipation                 | 300      | mW   |
| $T_J$           | Junction Temperature                        | 150      | °C   |
| $T_{STG}$       | Storage Temperature                         | -55~+150 | °C   |
| $R_{\theta JA}$ | Thermal Resistance From Junction To Ambient | 417      | °C/W |

Note:

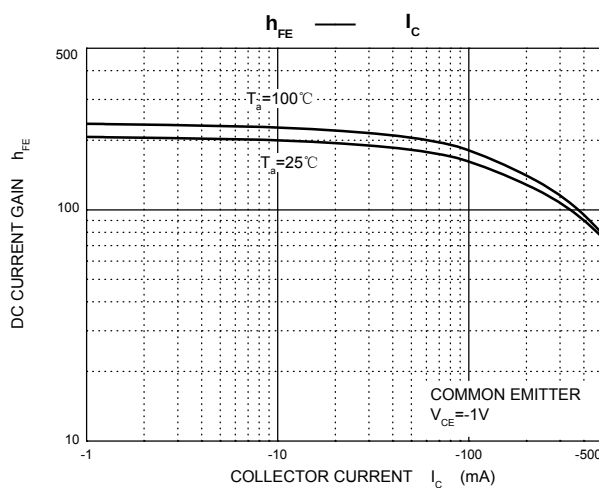
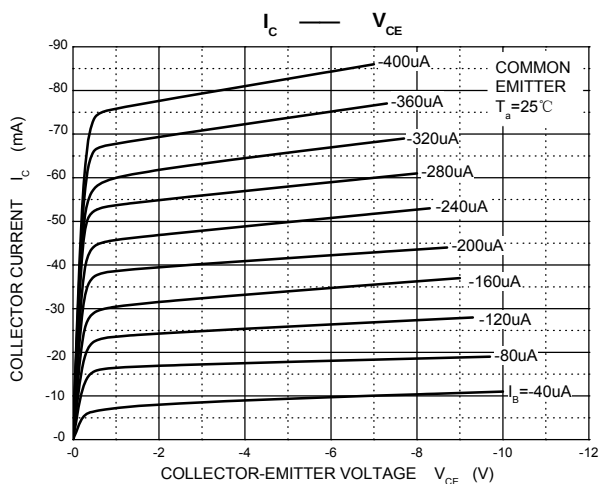
Absolute maximum ratings are those values beyond which the device could be permanently damaged.

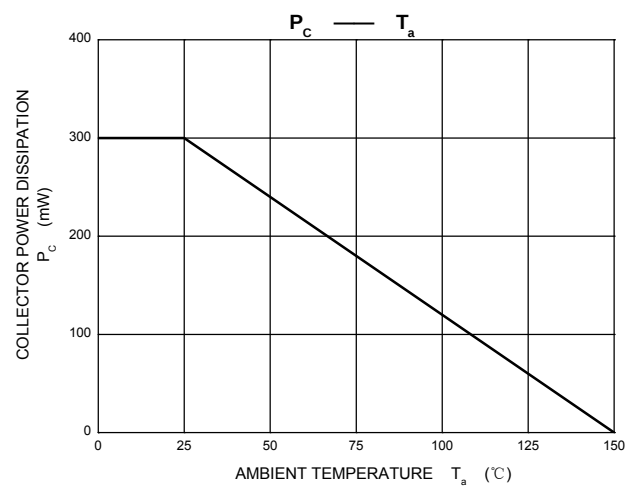
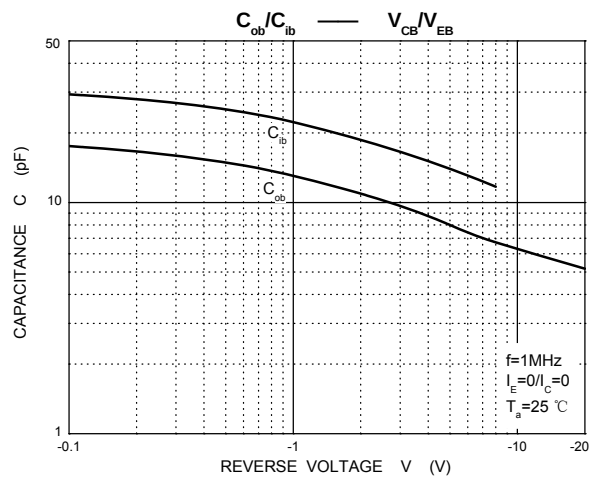
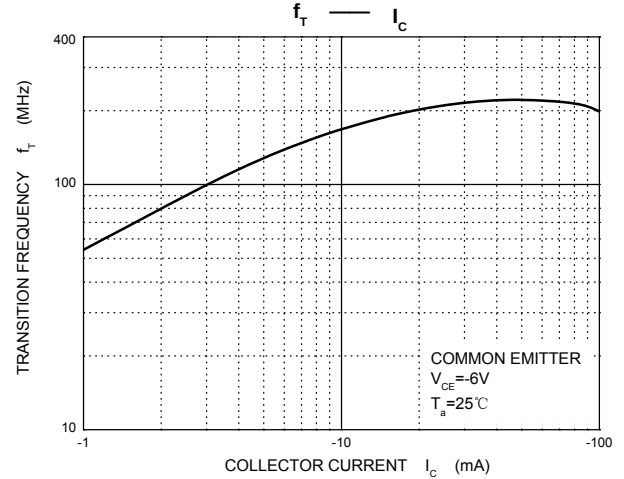
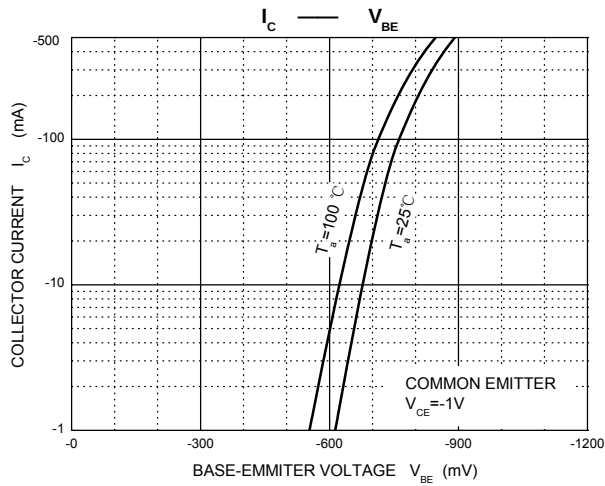
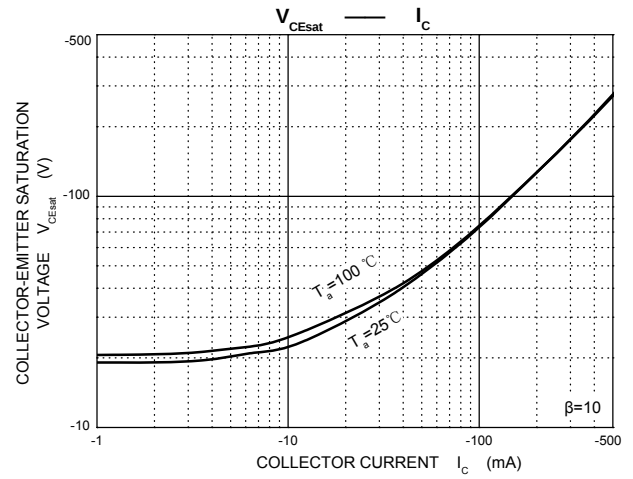
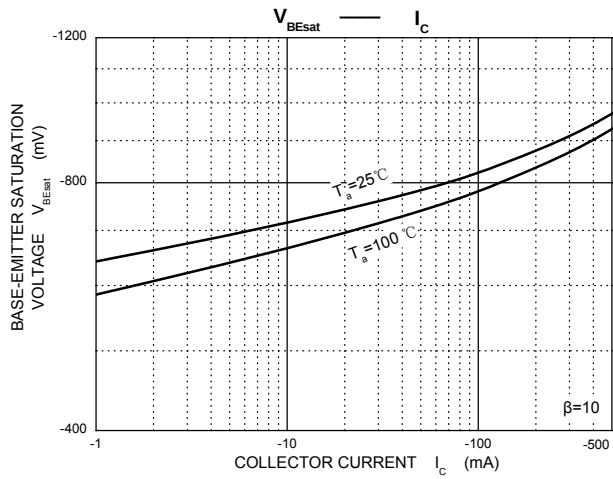
Absolute maximum ratings are stress ratings only and functional device operation is not implied.

**Electrical characteristics**(Ta=25°C unless otherwise noted)

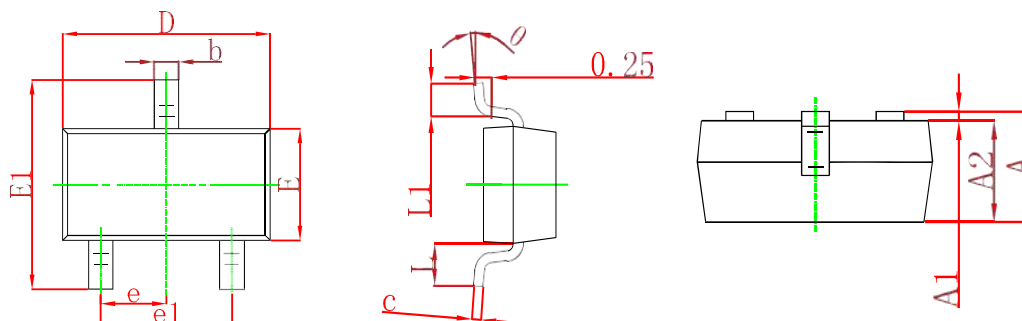
| Parameter                                         | Symbol        | Test Conditions                  | Min | Max  | Unit    |
|---------------------------------------------------|---------------|----------------------------------|-----|------|---------|
| Collector-base breakdown voltage                  | $V_{(BR)CBO}$ | $I_C=-100\mu A, I_E=0$           | -40 |      | V       |
| Collector-emitter breakdown voltage               | $V_{(BR)CEO}$ | $I_C=-1mA, I_B=0$                | -25 |      | V       |
| Emitter-base breakdown voltage                    | $V_{(BR)EBO}$ | $I_E=-100\mu A, I_C=0$           | -5  |      | V       |
| Collector cutoff current                          | $I_{CBO}$     | $V_{CB}=-40V, I_E=0$             |     | -0.1 | $\mu A$ |
| Collector cut-off current                         | $I_{CEO}$     | $V_{CE}=-20V, I_B=0$             |     | -0.1 | $\mu A$ |
| Emitter cut-off current                           | $I_{EBO}$     | $V_{EB}=-5V, I_C=0$              |     | -0.1 | $\mu A$ |
| DC Current Gain<br>(CLASSIFICATION OF $h_{FE1}$ ) | $h_{FE1}$     | $V_{CE}=-1V, I_C=-50mA$          | 120 | 200  |         |
|                                                   |               |                                  | 200 | 350  |         |
|                                                   | $h_{FE2}$     | $V_{CE}=-1V, I_C=-500mA$         | 50  |      |         |
| Collector-emitter saturation voltage              | $V_{CE(sat)}$ | $I_C=-500mA, I_B=-50mA$          |     | -0.6 | V       |
| Base-Emitter Saturation Voltage                   | $V_{BE(sat)}$ | $I_C=-500mA, I_B=-50mA$          |     | -1.2 | V       |
| Transition frequency                              | $f_T$         | $V_{CE}=-6V, I_C=-20mA, f=30MHz$ | 150 |      | MHz     |

**Typical Characteristics**





**Package outline Dimensions**  
**SOT-23**



| Symbol   | Dimensions In Millimeters |       | Dimensions In Inches |       |
|----------|---------------------------|-------|----------------------|-------|
|          | Min.                      | Max.  | Min.                 | Max.  |
| A        | 0.900                     | 1.150 | 0.035                | 0.045 |
| A1       | 0.000                     | 0.100 | 0.000                | 0.004 |
| A2       | 0.900                     | 1.050 | 0.035                | 0.041 |
| b        | 0.300                     | 0.500 | 0.012                | 0.020 |
| c        | 0.080                     | 0.150 | 0.003                | 0.006 |
| D        | 2.800                     | 3.000 | 0.110                | 0.118 |
| E        | 1.200                     | 1.400 | 0.047                | 0.055 |
| E1       | 2.250                     | 2.550 | 0.089                | 0.100 |
| e        | 0.950 TYP                 |       | 0.037 TYP            |       |
| e1       | 1.800                     | 2.000 | 0.071                | 0.079 |
| L        | 0.550 REF                 |       | 0.022 REF            |       |
| L1       | 0.300                     | 0.500 | 0.012                | 0.020 |
| $\theta$ | 0°                        | 8°    | 0°                   | 8°    |

**\*Important Usage Information and Disclaimer**

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