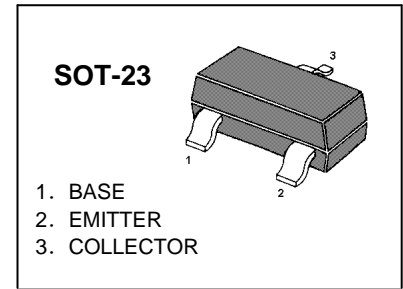


**S8050 TRANSISTOR (NPN)**

**FEATURES**

Complimentary to S8550  
Collector Current:  $I_C=0.5A$



**MARKING: J3Y**

**MAXIMUM RATINGS ( $T_A=25^{\circ}C$  unless otherwise noted)**

| Symbol    | Parameter                     | Value   | Units       |
|-----------|-------------------------------|---------|-------------|
| $V_{CBO}$ | Collector-Base Voltage        | 40      | V           |
| $V_{CEO}$ | Collector-Emitter Voltage     | 25      | V           |
| $V_{EBO}$ | Emitter-Base Voltage          | 5       | V           |
| $I_C$     | Collector Current -Continuous | 0.5     | A           |
| $P_C$     | Collector Dissipation         | 0.3     | W           |
| $T_j$     | Junction Temperature          | 150     | $^{\circ}C$ |
| $T_{stg}$ | Storage Temperature           | -55-150 | $^{\circ}C$ |

**ELECTRICAL CHARACTERISTICS ( $T_{amb}=25^{\circ}C$  unless otherwise specified)**

| Parameter                            | Symbol        | Test conditions                    | MIN | TYP | 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 cut-off current            | $I_{CBO}$     | $V_{CB}=40V, I_E=0$                |     |     | 0.1 | $\mu A$ |
| Collector cut-off current            | $I_{CEO}$     | $V_{CB}=20V, I_E=0$                |     |     | 0.1 | $\mu A$ |
| Emitter cut-off current              | $I_{EBO}$     | $V_{EB}=5V, I_C=0$                 |     |     | 0.1 | $\mu A$ |
| DC current gain                      | $H_{FE(1)}$   | $V_{CE}=1V, I_C=50mA$              | 200 |     | 350 |         |
|                                      | $H_{FE(2)}$   | $V_{CE}=1V, I_C=500mA$             | 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                 | $f_T$         | $V_{CE}=6V, I_C=20mA$<br>$f=30MHz$ | 150 |     |     | MHz     |

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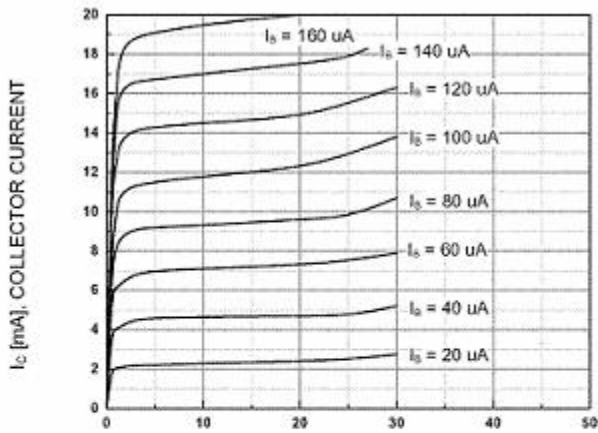
传真: 0755-82568886

网址: [www.idchip.cn](http://www.idchip.cn)

公司地址: 深圳市福田区滨河大道联合广场 A 座 1308

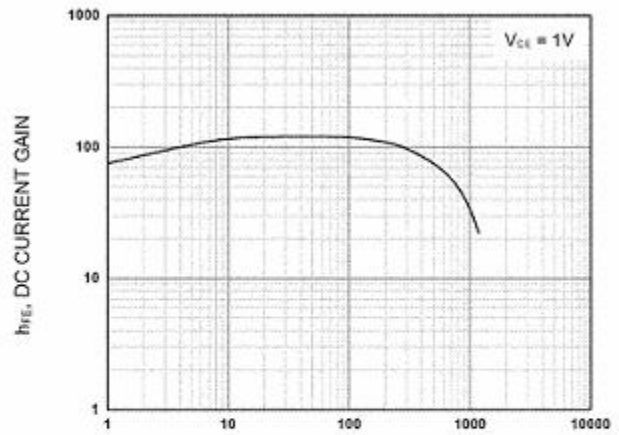
### Typical Characteristics

### S8050



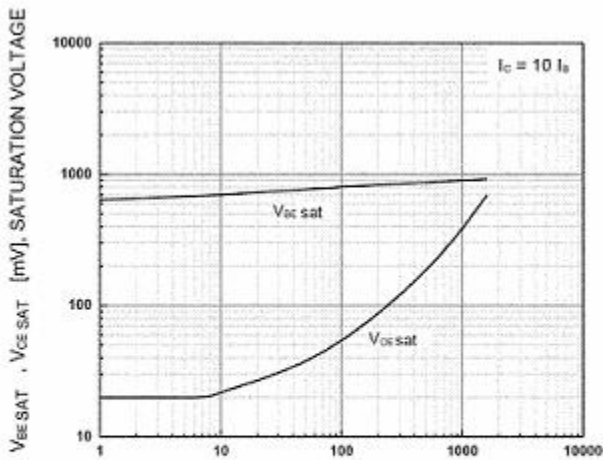
$V_{CE}$  [V], COLLECTOR-EMITTER VOLTAGE

Static Characteristic



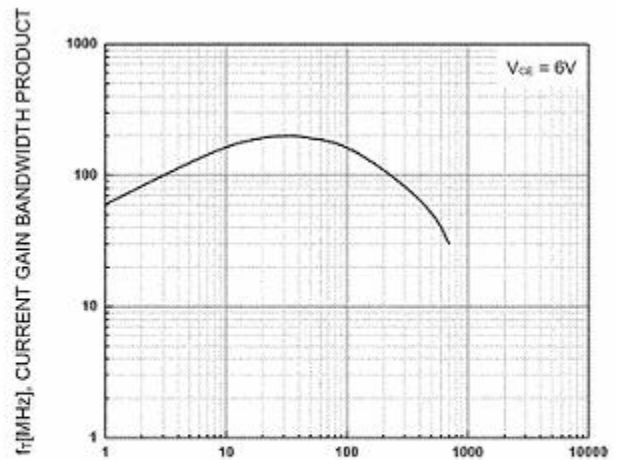
$I_c$  [mA], COLLECTOR CURRENT

DC current Gain



$I_c$  [mA], COLLECTOR CURRENT

Base-Emitter Saturation Voltage  
Collector-Emitter Saturation Voltage



$I_c$  [mA], COLLECTOR CURRENT

Current Gain Bandwidth Product

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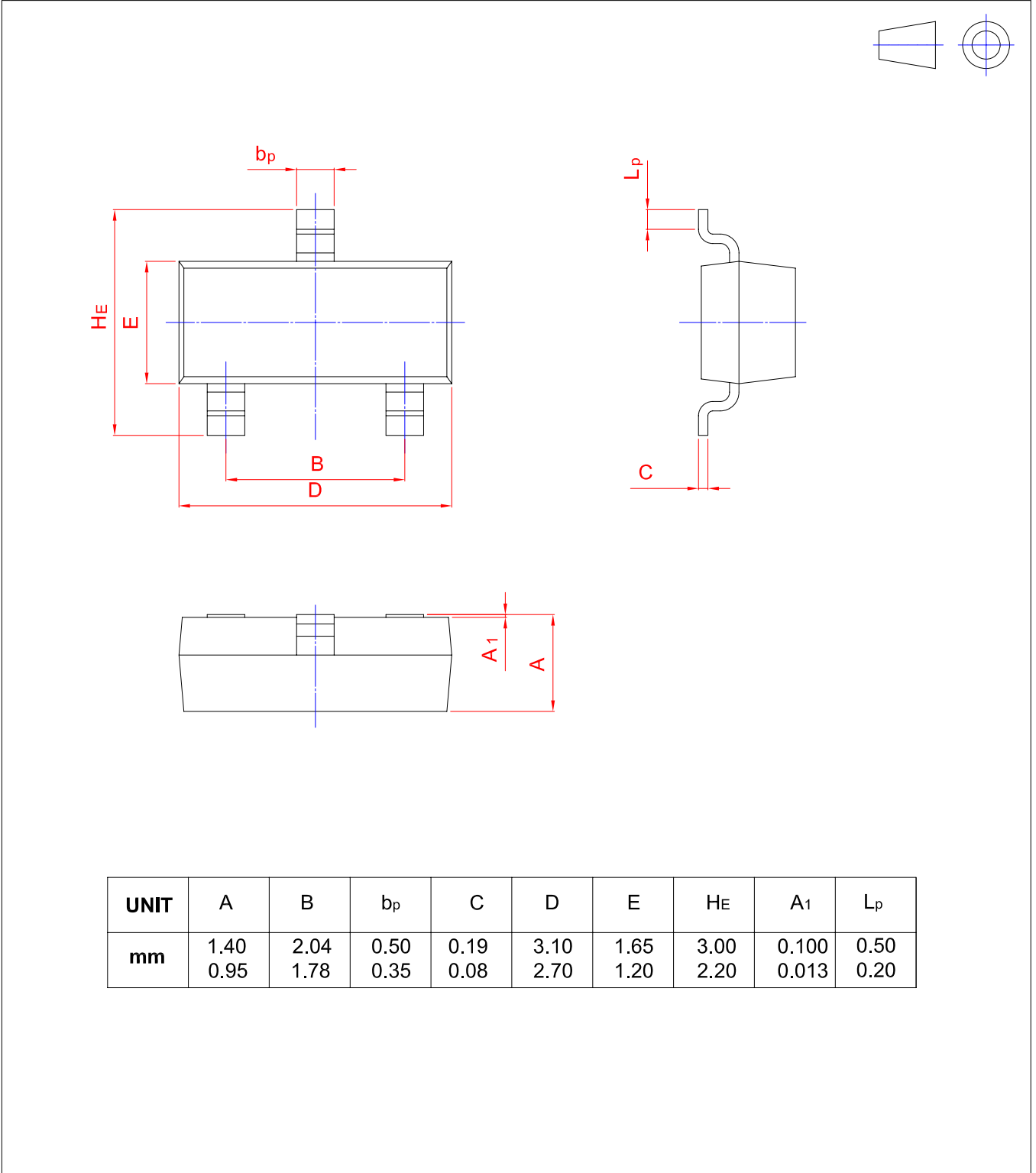
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### PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT-23



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