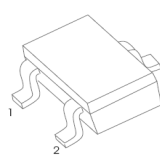


|  |  |
|--|--|
| <b>TRANSISTOR(NPN)</b>   | <b>SOT-523 Plastic-Encapsulate Transistors</b>   |
| <p><b>SOT-523</b></p>  <p>1. BASE<br/>2. EMITTER<br/>3. COLLECTOR</p> | <p><b>Features</b></p> <ul style="list-style-type: none"> <li>● Complementary to MMBT3906T</li> <li>● Small Package</li> </ul> |

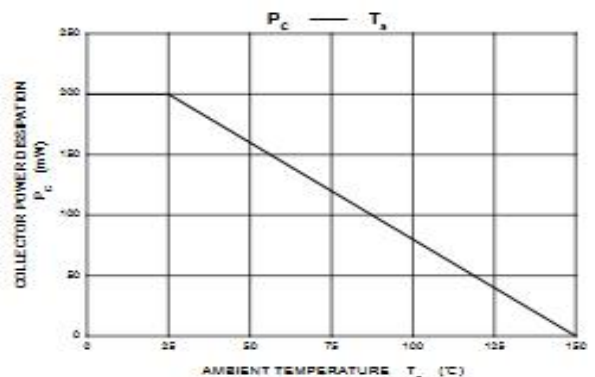
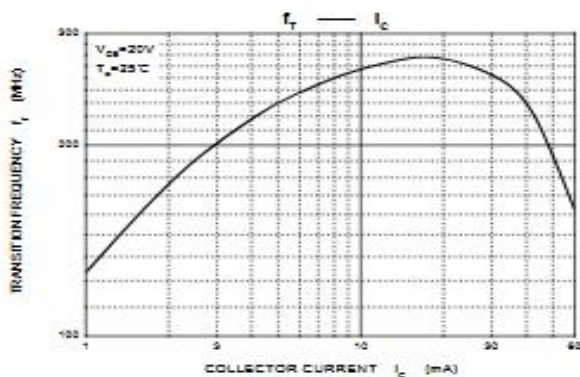
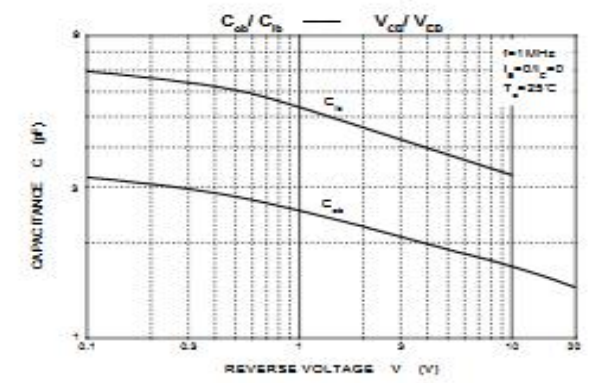
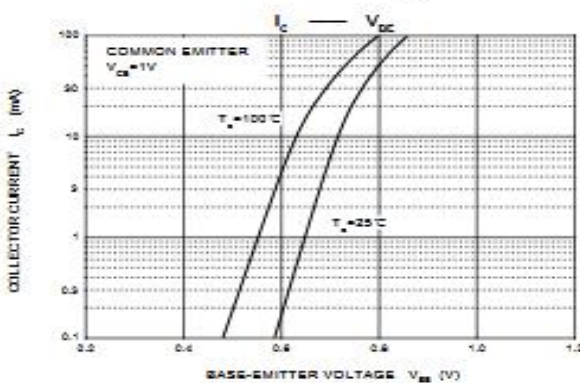
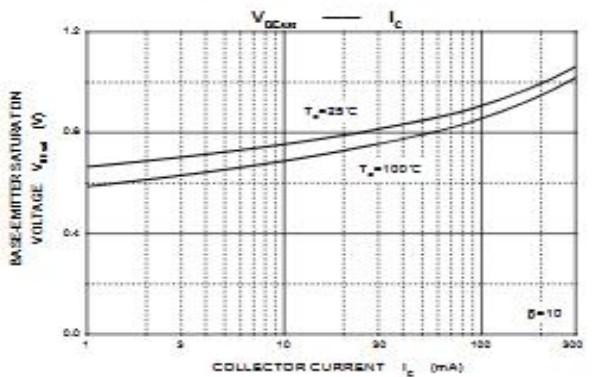
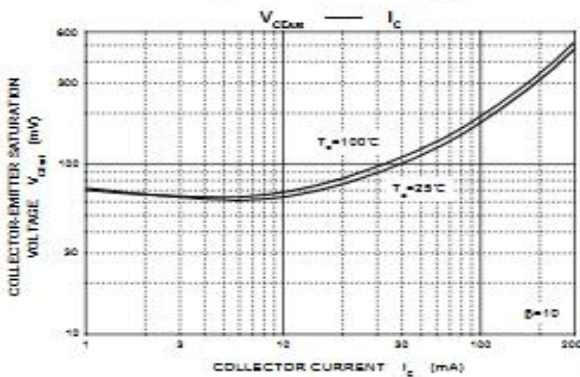
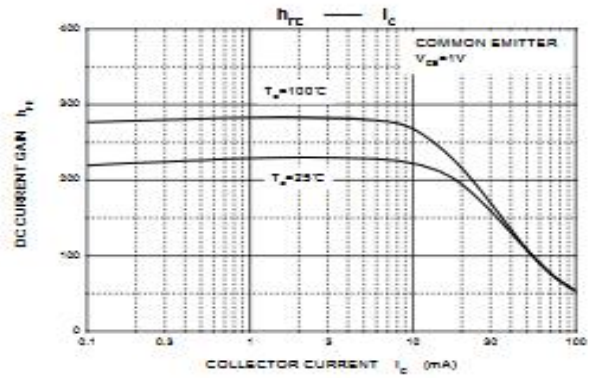
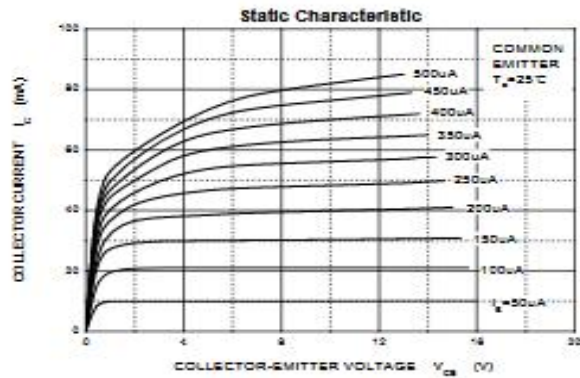
**MAXIMUM RATINGS (T<sub>a</sub>=25°C unless otherwise noted)**

| Symbol           | Parameter                                   | Value    | Unit |
|------------------|---|----------|------|
| V <sub>CB0</sub> | Collector-Base Voltage                      | 60       | V    |
| V <sub>CEO</sub> | Collector-Emitter Voltage                   | 40       | V    |
| V <sub>EBO</sub> | Emitter-Base Voltage                        | 6        | V    |
| I <sub>c</sub>   | Collector Current                           | 200      | mA   |
| P <sub>c</sub>   | Collector Power Dissipation                 | 150      | mW   |
| R <sub>θJA</sub> | Thermal Resistance From Junction To Ambient | 833      | °C/W |
| T <sub>j</sub>   | Junction Temperature                        | 150      | °C   |
| T <sub>stg</sub> | Storage Temperature                         | -55~+150 | °C   |

**ELECTRICAL CHARACTERISTICS (T<sub>a</sub>=25°C unless otherwise specified)**

| Parameter                            | Symbol               | Test conditions  | Min  | Typ | Max  | Unit |
|--------------------------------------|----------------------|--|------|-----|------|------|
| Collector-base breakdown voltage     | V <sub>(BR)CBO</sub> | I <sub>C</sub> =10μA, I <sub>E</sub> =0  | 60   |     |      | V    |
| Collector-emitter breakdown voltage  | V <sub>(BR)CEO</sub> | I <sub>C</sub> =1mA, I <sub>B</sub> =0   | 40   |     |      | V    |
| Emitter-base breakdown voltage       | V <sub>(BR)EBO</sub> | I <sub>E</sub> =10μA, I <sub>C</sub> =0  | 6    |     |      | V    |
| Collector cut-off current            | I <sub>CEX</sub>     | V <sub>CE</sub> =30V, V <sub>EB(off)</sub> =3V   |      |     | 50   | nA   |
| Emitter cut-off current              | I <sub>EBO</sub>     | V <sub>EB</sub> =5V, I <sub>C</sub> =0   |      |     | 100  | nA   |
| DC current gain                      | h <sub>FE(1)</sub>   | V <sub>CE</sub> =1V, I <sub>C</sub> =0.1mA   | 40   |     |      |      |
|                                      | h <sub>FE(2)</sub>   | V <sub>CE</sub> =1V, I <sub>C</sub> =1mA   | 70   |     |      |      |
|                                      | h <sub>FE(3)</sub>   | V <sub>CE</sub> =1V, I <sub>C</sub> =10mA  | 100  |     | 300  |      |
|                                      | h <sub>FE(4)</sub>   | V <sub>CE</sub> =1V, I <sub>C</sub> =50mA  | 60   |     |      |      |
| Collector-emitter saturation voltage | V <sub>CE(sat)</sub> | I <sub>C</sub> =10mA, I <sub>B</sub> =1mA  |      |     | 0.2  | V    |
|                                      |                      | I <sub>C</sub> =50mA, I <sub>B</sub> =5mA  |      |     | 0.3  | V    |
| Collector-emitter saturation voltage | V <sub>BE(sat)</sub> | I <sub>C</sub> =10mA, I <sub>B</sub> =1mA  | 0.65 |     | 0.85 | V    |
|                                      |                      | I <sub>C</sub> =50mA, I <sub>B</sub> =5mA  |      |     | 0.95 | V    |
| Transition frequency                 | f <sub>T</sub>       | V <sub>CE</sub> =20V, I <sub>C</sub> =10mA, f=100MHz   | 300  |     |      | MHz  |
| Collector output capacitance         | C <sub>ob</sub>      | V <sub>CB</sub> =5V, I <sub>E</sub> =0, f=1MHz   |      |     | 4    | pF   |
| Base input capacitance               | C <sub>ib</sub>      | V <sub>EB</sub> =0.5V, I <sub>C</sub> =0, f=1MHz   |      |     | 8    | pF   |
| Delay time                           | t <sub>d</sub>       | V <sub>CC</sub> =3V, V <sub>BE(off)</sub> =-0.5V, I <sub>C</sub> =10mA, I <sub>B1</sub> =1mA |      |     | 35   | ns   |
| Rise time                            | t <sub>r</sub>       | V <sub>CC</sub> =3V, V <sub>BE(off)</sub> =-0.5V, I <sub>C</sub> =10mA, I <sub>B1</sub> =1mA |      |     | 35   | ns   |
| Storage time                         | t <sub>s</sub>       | V <sub>CC</sub> =3V, I <sub>C</sub> =10mA, I <sub>B1</sub> =I <sub>B2</sub> =1mA             |      |     | 200  | ns   |
| Fall time                            | t <sub>f</sub>       | V <sub>CC</sub> =3V, I <sub>C</sub> =10mA, I <sub>B1</sub> =I <sub>B2</sub> =1mA             |      |     | 50   | ns   |

TYPICAL ELECTRICAL AND THERMAL CHARACTERISTICS



单击下面可查看定价，库存，交付和生命周期等信息

[>>DIOS\(迪恩思\)](#)