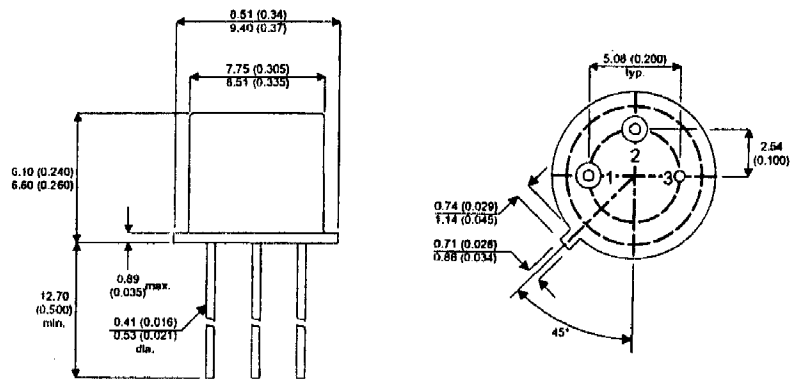


2N5583

PNP SILICON HIGH FREQUENCY TRANSISTOR

**Bipolar PNP Device in a
 Hermetically sealed TO39
 Metal Package.**

Dimensions in mm (inches).



TO39

1 - Emitter 2 - Base 3 - Collector

MAXIMUM RATINGS

| | |
|---------------|--|
| I_C | 500 mA |
| V_{CE} | -30 V |
| P_{DISS} | 1.0 W @ $T_A = 25^\circ C$ 5.0 W @ $T_C = 25^\circ C$ |
| T_J | -65 °C to +200 °C |
| T_{STG} | -65 °C to +200 °C |
| θ_{JC} | 350 °C/W |

CHARACTERISTICS $T_C = 25^\circ C$

| SYMBOL | TEST CONDITIONS | MINIMUM | TYPICAL | MAXIMUM | UNITS |
|-------------------------|---|---------|---------|---------|-------|
| BV_{CEO} | $I_C = 10 \text{ mA}$ | -30 | | | V |
| BV_{CBO} | $I_C = 10 \mu A$ | -30 | | | V |
| BV_{EBO} | $I_C = 100 \mu A$ | -3.0 | | | V |
| I_{CBO} | $V_{CB} = -20 \text{ V}$ | | | 50 | nA |
| I_{EBO} | $V_{EB} = -2.0 \text{ V}$ | | | 500 | nA |
| h_{FE} | $V_{CE} = -2.0 \text{ V}$ $I_C = 40 \text{ mA}$ | 20 | | | --- |
| | $I_C = 100 \text{ mA}$ | 25 | | 100 | |
| | $V_{CE} = -5.0 \text{ V}$ $I_C = 300 \text{ mA}$ | 15 | | | |
| $V_{CE(SAT)}$ | $I_C = 100 \text{ mA}$ $I_B = 10 \text{ mA}$ | | | -0.8 | V |
| $V_{BE(ON)}$ | $V_{CE} = -2.0 \text{ V}$ $I_C = 100 \text{ mA}$ | | | -1.8 | V |
| f_t | $V_{CE} = -10 \text{ V}$ $I_C = 40 \text{ mA}$ $f = 100 \text{ MHz}$ | 1000 | | | MHz |
| | $I_C = 100 \text{ mA}$ $f = 100 \text{ MHz}$ | 1300 | | | |
| C_{cb} | $V_{CB} = -15 \text{ V}$ $f = 100 \text{ KHz}$ | | | 5.0 | pF |
| C_{eb} | $V_{EB} = -0.5 \text{ V}$ $f = 100 \text{ KHz}$ | | | 35 | pF |
| $r_{b'c_c}$ | $V_{CB} = -10 \text{ V}$ $I_C = 50 \text{ mA}$ $f = 63.6 \text{ MHz}$ | | 8.2 | | pS |
| t_d t_r t_f | $V_{CC} = -31.4 \text{ V}$ $I_C = 150 \text{ mA}$ | | 1.2 | | nS |
| | $R_C = 160 \Omega$ $R_E = 26.6 \Omega$ | | 2.2 | | |
| | | | 2.0 | | |