

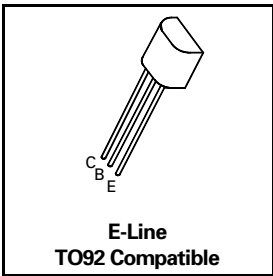
PNP SILICON PLANAR MEDIUM POWER TRANSISTORS

ZTX550
ZTX551

ISSUE 1 – MARCH 94

FEATURES

- * 60 Volt V_{CE0}
- * 1 Amp continuous current
- * $P_{tot} = 1$ Watt



ABSOLUTE MAXIMUM RATINGS.

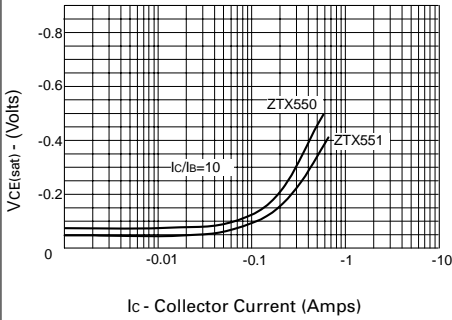
| PARAMETER | SYMBOL | ZTX550 | ZTX551 | UNIT |
|---|----------------|--------|-------------|----------------------|
| Collector-Base Voltage | V_{CBO} | -60 | -80 | V |
| Collector-Emitter Voltage | V_{CEO} | -45 | -60 | V |
| Emitter-Base Voltage | V_{EBO} | | -5 | V |
| Peak Pulse Current | I_{CM} | | -2 | A |
| Continuous Collector Current | I_C | | -1 | A |
| Power Dissipation: at $T_{amb}=25^{\circ}C$ derate above $25^{\circ}C$ | P_{tot} | | 1 5.7 | W mW/ $^{\circ}C$ |
| Operating and Storage Temperature Range | $T_j; T_{stg}$ | | -55 to +200 | $^{\circ}C$ |

ELECTRICAL CHARACTERISTICS (at $T_{amb} = 25^{\circ}C$).

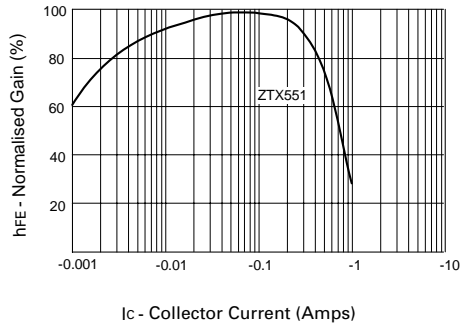
| PARAMETER | SYMBOL | ZTX550 | | ZTX551 | | UNIT | CONDITIONS. |
|---------------------------------------|----------------|-----------|-------|----------|-------|---------|--|
| | | MIN. | MAX. | MIN. | MAX. | | |
| Collector-Base Breakdown Voltage | $V_{(BR)CBO}$ | -60 | | -80 | | V | $I_C = -100\mu A$ |
| Collector-Emitter Sustaining Voltage | $V_{CEO(sus)}$ | -45 | | -60 | | V | $I_C = -10mA^*$ |
| Emitter-Base Breakdown Voltage | $V_{(BR)EBO}$ | -5 | | -5 | | V | $I_E = -100\mu A$ |
| Collector Cut-Off Current | I_{CBO} | | -0.1 | | -0.1 | μA | $V_{CB} = -45V$ $V_{CE} = -60V$ |
| Emitter Cut-Off Current | I_{EBO} | | -0.1 | | -0.1 | μA | $V_{EB} = -4V$ |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$ | | -0.25 | | -0.35 | V | $I_C = -150mA,$ $I_B = -15mA^*$ |
| Base-Emitter Saturation Voltage | $V_{BE(sat)}$ | | -1.1 | | -1.1 | V | $I_C = -150mA,$ $I_B = -15mA^*$ |
| Static Forward Current Transfer Ratio | h_{FE} | 100 15 | 300 | 50 10 | 150 | | $I_C = -150mA,$ $V_{CE} = -10V^*$ $I_C = -1A, V_{CE} = -10V^*$ |
| Transition Frequency | f_T | 150 | | 150 | | MHz | $I_C = -50mA, V_{CE} = -10V$ $f = 100MHz$ |

ZTX550 ZTX551

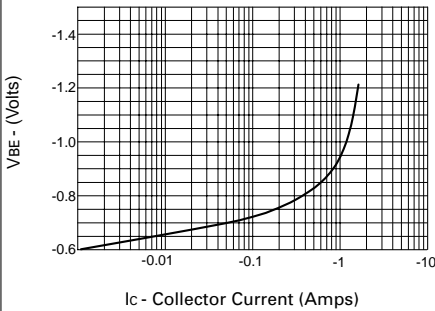
TYPICAL CHARACTERISTICS



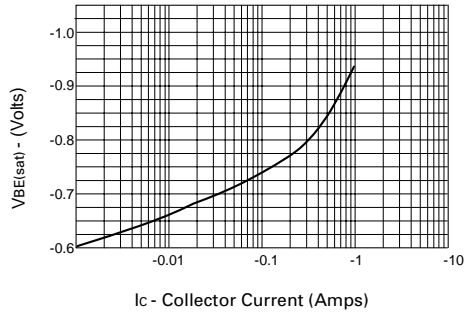
$V_{CE(sat)}$ v I_C



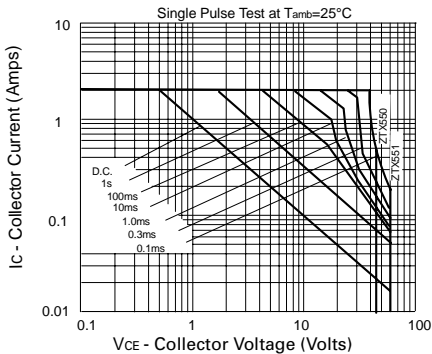
h_{FE} v I_C



$V_{BE(on)}$ v I_C



$V_{BE(sat)}$ v I_C



Safe Operating Area