

DISCONTINUED
PLEASE USE ZXT549

PNP SILICON PLANAR MEDIUM POWER TRANSISTOR

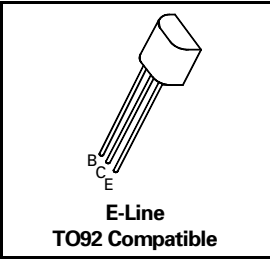
FXT549

ISSUE 1 – SEPT 93

FEATURES

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

REFER TO ZTX549 FOR GRAPHS



ABSOLUTE MAXIMUM RATINGS.

| PARAMETER | SYMBOL | VALUE | UNIT |
|---|----------------|-------------|------------------|
| Collector-Base Voltage | V_{CBO} | -35 | V |
| Collector-Emitter Voltage | V_{CEO} | -30 | 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 $T_{amb}=25^\circ\text{C}$ | P_{tot} | 1 | W |
| Operating and Storage Temperature Range | $T_j; T_{stg}$ | -55 to +200 | $^\circ\text{C}$ |

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

| PARAMETER | SYMBOL | MIN. | TYP. | MAX. | UNIT | CONDITIONS. |
|---------------------------------------|---------------|-----------------------|-------------------------|----------------|--------------------------------|---|
| Collector-Base Breakdown Voltage | $V_{(BR)CBO}$ | -35 | | | V | $I_C = -100\mu\text{A}, I_E = 0$ |
| Collector-Emitter Breakdown Voltage | $V_{(BR)CEO}$ | -30 | | | V | $I_C = -10\text{mA}, I_B = 0^*$ |
| Emitter-Base Breakdown Voltage | $V_{(BR)EBO}$ | -5 | | | V | $I_E = -100\mu\text{A}, I_C = 0$ |
| Collector Cut-Off Current | I_{CBO} | | | -0.1 -10 | μA μA | $V_{CB} = -30\text{V}$ $V_{CB} = -30\text{V}, T_{amb} = 100^\circ\text{C}$ |
| Emitter Cut-Off Current | I_{EBO} | | | -0.1 | μA | $V_{EB} = -4\text{V}, I_C = 0$ |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$ | | -0.25 -0.50 | -0.50 -0.75 | V V | $I_C = -1\text{A}, I_B = -100\text{mA}^*$ $I_C = -2\text{A}, I_B = -200\text{mA}^*$ |
| Base-Emitter Saturation Voltage | $V_{BE(sat)}$ | | -0.90 | -1.25 | V | $I_C = -1\text{A}, I_B = -100\text{mA}^*$ |
| Base-Emitter Turn-On Voltage | $V_{BE(on)}$ | | -0.85 | -1 | V | $I_C = -1\text{A}, V_{CE} = -2\text{V}^*$ |
| Static Forward Current Transfer Ratio | h_{FE} | 70 100 80 40 | 200 160 130 80 | 300 | | $I_C = -50\text{mA}, V_{CE} = -2\text{V}^*$ $I_C = -500\text{mA}, V_{CE} = -2\text{V}^*$ $I_C = -1\text{A}, V_{CE} = -2\text{V}^*$ $I_C = -2\text{A}, V_{CE} = -2\text{V}^*$ |
| Transition Frequency | f_T | 100 | | | MHz | $I_C = -100\text{mA}, V_{CE} = -5\text{V}$ $f = 100\text{MHz}$ |
| Output Frequency | C_{obo} | | | 25 | pF | $V_{CB} = -10\text{V}, f = 1\text{MHz}$ |

* Measured under pulsed conditions. Pulse width=300 μs . Duty cycle $\leq 2\%$