

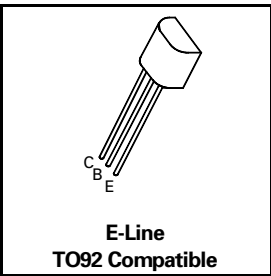
PNP SILICON PLANAR MEDIUM POWER TRANSISTORS

**ZTX750
ZTX751**

ISSUE 2 – JULY 94

FEATURES

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



ABSOLUTE MAXIMUM RATINGS.

| PARAMETER | SYMBOL | ZTX750 | ZTX751 | 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} | | -6 | A |
| Continuous Collector Current | I_C | | -2 | 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 $T_{amb} = 25^{\circ}C$ unless otherwise stated).

| PARAMETER | SYMBOL | ZTX750 | | | ZTX751 | | | UNIT | CONDITIONS. |
|--------------------------------------|---------------|--------|----------------|--------------|--------|----------------|--------------|--|--|
| | | MIN. | TYP. | MAX. | MIN. | TYP. | MAX. | | |
| Collector-Base Breakdown Voltage | $V_{(BR)CBO}$ | -60 | | | -80 | | | V | $I_C = -100\mu A$ |
| Collector-Emitter Breakdown Voltage | $V_{(BR)CEO}$ | -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 -10 | | | -0.1 -10 | μA μA μA μA | $V_{CB} = -45V$ $V_{CB} = -60V$ $V_{CB} = -45V, T_{amb} = 100^{\circ}C$ $V_{CB} = -60V, T_{amb} = 100^{\circ}C$ |
| Emitter Cut-Off Current | I_{EBO} | | | -0.1 | | | -0.1 | μA | $V_{EB} = -4V$ |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$ | | -0.15 -0.28 | -0.3 -0.5 | | -0.15 -0.28 | -0.3 -0.5 | V V | $I_C = -1A, I_B = -100mA$ $I_C = -2A, I_B = -200mA$ |
| Base-Emitter Saturation Voltage | $V_{BE(sat)}$ | | -0.9 | -1.25 | | -0.9 | -1.25 | V | $I_C = -1A, I_B = -100mA$ |

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

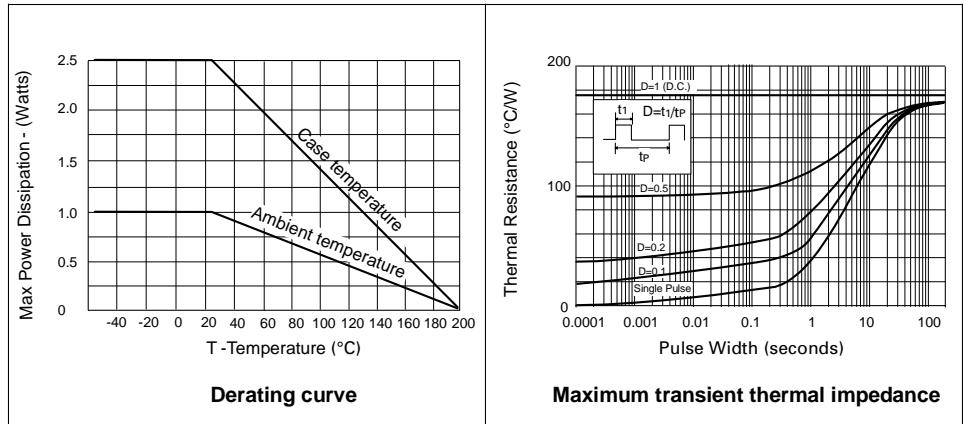
| PARAMETER | SYMBOL | ZTX750 | | | ZTX751 | | | UNIT | CONDITIONS. |
|----------------------|-----------|--------|------|------|--------|------|------|------|--|
| | | MIN. | TYP. | MAX. | MIN. | TYP. | MAX. | | |
| Transition Frequency | f_T | 100 | 140 | | 100 | 140 | | MHz | $I_C = -100\text{mA}$, $V_{CE} = -5\text{V}$ $f = 100\text{MHz}$ |
| Switching Times | t_{on} | | 40 | | | 40 | | ns | $I_C = -500\text{mA}$, $V_{CC} = -10\text{V}$ $I_{B1} = I_{B2} = -50\text{mA}$ |
| | t_{off} | | 450 | | | 450 | | ns | |
| Output Capacitance | C_{obo} | | | 30 | | | 30 | pF | $V_{CB} = 10\text{V}$ $f = 1\text{MHz}$ |

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

THERMAL CHARACTERISTICS

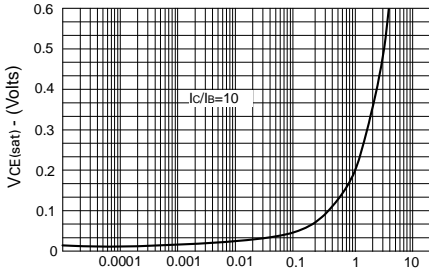
| PARAMETER | SYMBOL | MAX. | UNIT |
|--|--------------------------|------|----------------------|
| Thermal Resistance: Junction to Ambient ₁ | $R_{th(j-amb)1}$ | 175 | $^{\circ}\text{C/W}$ |
| Junction to Ambient ₂ | $R_{th(j-amb)2} \dagger$ | 116 | $^{\circ}\text{C/W}$ |
| Junction to Case | $R_{th(j-case)}$ | 70 | $^{\circ}\text{C/W}$ |

\dagger Device mounted on P.C.B. with copper equal to 1 sq. Inch minimum.



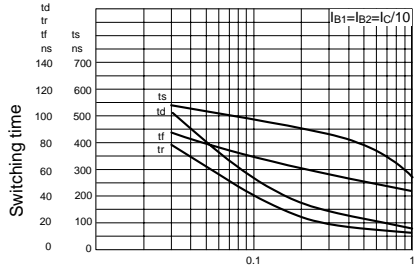
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TYPICAL CHARACTERISTICS



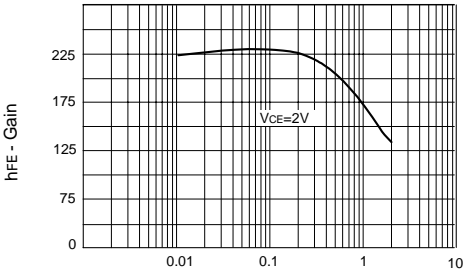
I_C - Collector Current (Amps)

$V_{CE(sat)}$ v I_C



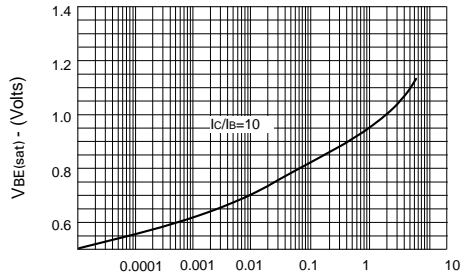
I_C - Collector Current (Amps)

Switching Speeds



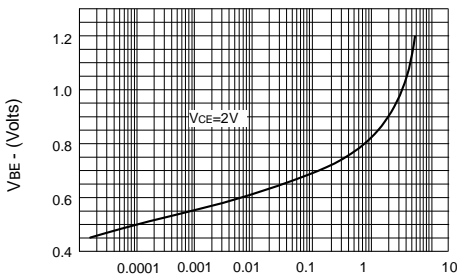
I_C - Collector Current (Amps)

h_{FE} v I_C



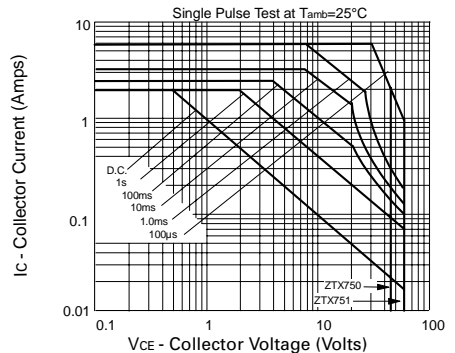
I_C - Collector Current (Amps)

$V_{BE(sat)}$ v I_C



I_C - Collector Current (Amps)

$V_{BE(on)}$ v I_C



V_{CE} - Collector Voltage (Volts)

Safe Operating Area

单击下面可查看定价，库存，交付和生命周期等信息

[>>Diodes Incorporated\(达达科技\(美台\)\)](#)