

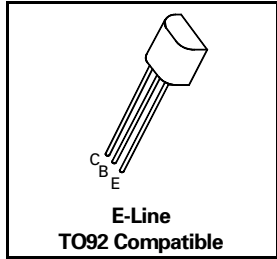
# PNP SILICON PLANAR MEDIUM POWER TRANSISTORS

**ZTX554**  
**ZTX555**

ISSUE 1 – MARCH 94

## FEATURES

- \* 150 Volt  $V_{CEO}$
- \* 1 Amp continuous current
- \*  $P_{tot} = 1$  Watt



## ABSOLUTE MAXIMUM RATINGS.

| PARAMETER   | SYMBOL         | ZTX554      | ZTX555 | UNIT                      |
|---|----------------|-------------|--------|---------------------------|
| Collector-Base Voltage  | $V_{CBO}$      | -140        | -160   | V                         |
| Collector-Emitter Voltage   | $V_{CEO}$      | -125        | -150   | 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 $T_{amb} = 25^\circ\text{C}$<br>derate above $25^\circ\text{C}$ | $P_{tot}$      | 1<br>5.7    |        | W<br>mW/ $^\circ\text{C}$ |
| 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        | ZTX554   |      | ZTX555   |      | UNIT                           | CONDITIONS.   |
|---------------------------------------|---------------|----------|------|----------|------|--------------------------------|---|
|                                       |               | MIN.     | MAX. | MIN.     | MAX. |                                |   |
| Collector-Base Breakdown Voltage      | $V_{(BR)CBO}$ | -140     |      | -160     |      | V                              | $I_C = -100\mu\text{A}$   |
| Collector-Emitter Breakdown Voltage   | $V_{(BR)CEO}$ | -125     |      | -150     |      | V                              | $I_C = -10\text{mA}^*$  |
| Emitter-Base Breakdown Voltage        | $V_{(BR)EBO}$ | -5       |      | -5       |      | V                              | $I_E = -100\mu\text{A}$   |
| Collector Cut-Off Current             | $I_{CBO}$     |          | -0.1 |          | -0.1 | $\mu\text{A}$<br>$\mu\text{A}$ | $V_{CB} = -120\text{V}$<br>$V_{CB} = -140\text{V}$  |
| Emitter Cut-Off Current               | $I_{EBO}$     |          | -0.1 |          | -0.1 | $\mu\text{A}$                  | $V_{EB} = -4\text{V}$   |
| Collector-Emitter Saturation Voltage  | $V_{CE(sat)}$ |          | -0.3 |          | -0.3 | V                              | $I_C = -100\text{mA}$ , $I_B = -10\text{mA}^*$  |
| Base-Emitter Saturation Voltage       | $V_{BE(sat)}$ |          | -1   |          | -1   | V                              | $I_C = -100\text{mA}$ , $I_B = -10\text{mA}^*$  |
| Base-Emitter Turn-on Voltage          | $V_{BE(on)}$  |          | -1   |          | -1   | V                              | $I_C = -100\text{mA}$ , $V_{CE} = -10\text{V}^*$  |
| Static Forward Current Transfer Ratio | $h_{FE}$      | 50<br>50 | 300  | 50<br>50 | 300  |                                | $I_C = -10\text{mA}$ , $V_{CE} = -10\text{V}^*$<br>$I_C = -300\text{mA}$ , $V_{CE} = -10\text{V}^*$ |
| Transition Frequency                  | $f_T$         | 100      |      | 100      |      | MHz                            | $I_C = -50\text{mA}$ , $V_{CE} = -10\text{V}$<br>$f = 100\text{MHz}$                                |
| Output Capacitance                    | $C_{obo}$     |          | 10   |          | 10   | pF                             | $V_{CB} = -10\text{V}$ , $f = 1\text{MHz}$  |



## TYPICAL CHARACTERISTICS

