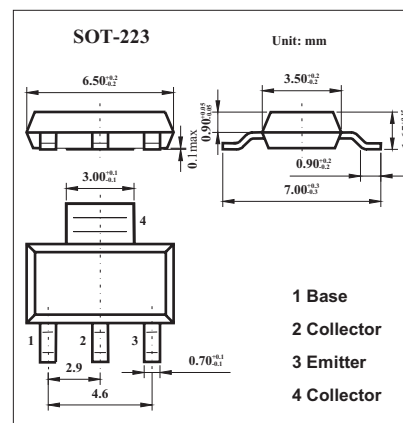


## PNP Current Driver Transistor

## NZT753

## ■ Features

■ Absolute Maximum Ratings  $T_a = 25^\circ\text{C}$  unless otherwise noted

| Parameter                                        | Symbol          | Rating       | Unit                      |
|--------------------------------------------------|-----------------|--------------|---------------------------|
| Collector-Emitter Voltage                        | $V_{CEO}$       | -100         | V                         |
| Collector-Base Voltage                           | $V_{CBO}$       | -120         | V                         |
| Emitter-Base Voltage                             | $V_{EBO}$       | -5           | V                         |
| Collector Current - Continuous                   | $I_C$           | -4           | A                         |
| Operating and Storage Junction Temperature Range | $T_J, T_{STG}$  | - 55 to +150 | $^\circ\text{C}$          |
| Total Device Dissipation                         | $P_D$           | 1.2          | W                         |
| Derate above $25^\circ\text{C}$                  |                 | 9.7          | mW/ $^\circ\text{C}$      |
| Thermal Resistance, Junction to Ambient          | $R_{\theta JA}$ | 103          | $^\circ\text{C}/\text{W}$ |

■ Electrical Characteristics  $T_a = 25^\circ\text{C}$  unless otherwise stated

| Parameter                            | Symbol        | Testconditions                                                | Min  | Typ | Max   | Unit          |
|--------------------------------------|---------------|---------------------------------------------------------------|------|-----|-------|---------------|
| Collector-Emitter Breakdown Voltage  | $BV_{CEO}$    | $I_C = -10\text{mA}, I_B = 0$                                 | -100 |     |       | V             |
| Collector-Base Breakdown Voltage     | $BV_{CBO}$    | $I_C = -100\mu\text{A}, I_E = 0$                              | -120 |     |       | V             |
| Emitter-Base Breakdown Voltage       | $BV_{EBO}$    | $I_E = -100\mu\text{A}, I_C = 0$                              | -5.0 |     |       | V             |
| Collector-Base Cutoff Current        | $I_{CBO}$     | $V_{CB} = -100\text{V}, I_E = 0$                              |      |     | -0.1  | $\mu\text{A}$ |
|                                      |               | $T_A = 100^\circ\text{C}$                                     |      |     | -10   | $\mu\text{A}$ |
| Emitter-Base Cutoff Current          | $I_{EBO}$     | $V_{EB} = -4\text{V}, I_C = 0$                                |      |     | -0.1  | $\mu\text{A}$ |
| DC Current Gain                      | $h_{FE}$      | $V_{CE} = -2.0\text{V}, I_C = -50\text{mA}$                   | 70   |     |       |               |
|                                      |               | $V_{CE} = -2.0\text{V}, I_C = -500\text{mA}$                  | 100  |     | 300   |               |
|                                      |               | $V_{CE} = -2.0\text{V}, I_C = -1.0\text{A}$                   | 55   |     |       |               |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C = -1.0\text{A}, I_B = -50\text{mA}$                      |      |     | -0.3  | V             |
| Base-Emitter Saturation Voltage      | $V_{BE(sat)}$ | $I_C = -1.0\text{A}, I_B = -100\text{mA}$                     |      |     | -1.25 | V             |
| Base-Emitter On Voltage              | $V_{BE(on)}$  | $V_{CE} = -2.0\text{V}, I_C = -1.0\text{A}$                   |      |     | -1.0  | V             |
| Transition Frequency                 | $f_T$         | $V_{CE} = -5\text{V}, I_C = -100\text{mA}, f = 100\text{MHz}$ | 75   |     |       | MHz           |

\*Pulse Test: Pulse Width  $\leq 300\mu\text{s}$ , Duty Cycle  $\leq 2.0\%$