# 60 V PNP MEDIUM POWER TRANSISTOR

**CZT751**
**SOT-223**
**Plastic Pakage**

**COMPLEMENTRY TYPE – CZT651**

**Maximum Ratings** @ $T_A$ =25°C unless otherwise specified

| PARAMETER | SYMBOL | VALUE | UNIT |
|---|---|---|---|
| Collector-Base Voltage | $V_{CBO}$ | -80 | V |
| Collector-Emitter Voltage | $V_{CEO}$ | -60 | V |
| Emitter-Base Voltage | $V_{EBO}$ | -5 | V |
| Continuous Collector Current | $I_C$ | -3 | A |
| Peak Pulse Current | $I_{CM}$ | -6 | A |

**Thermal Characteristics**

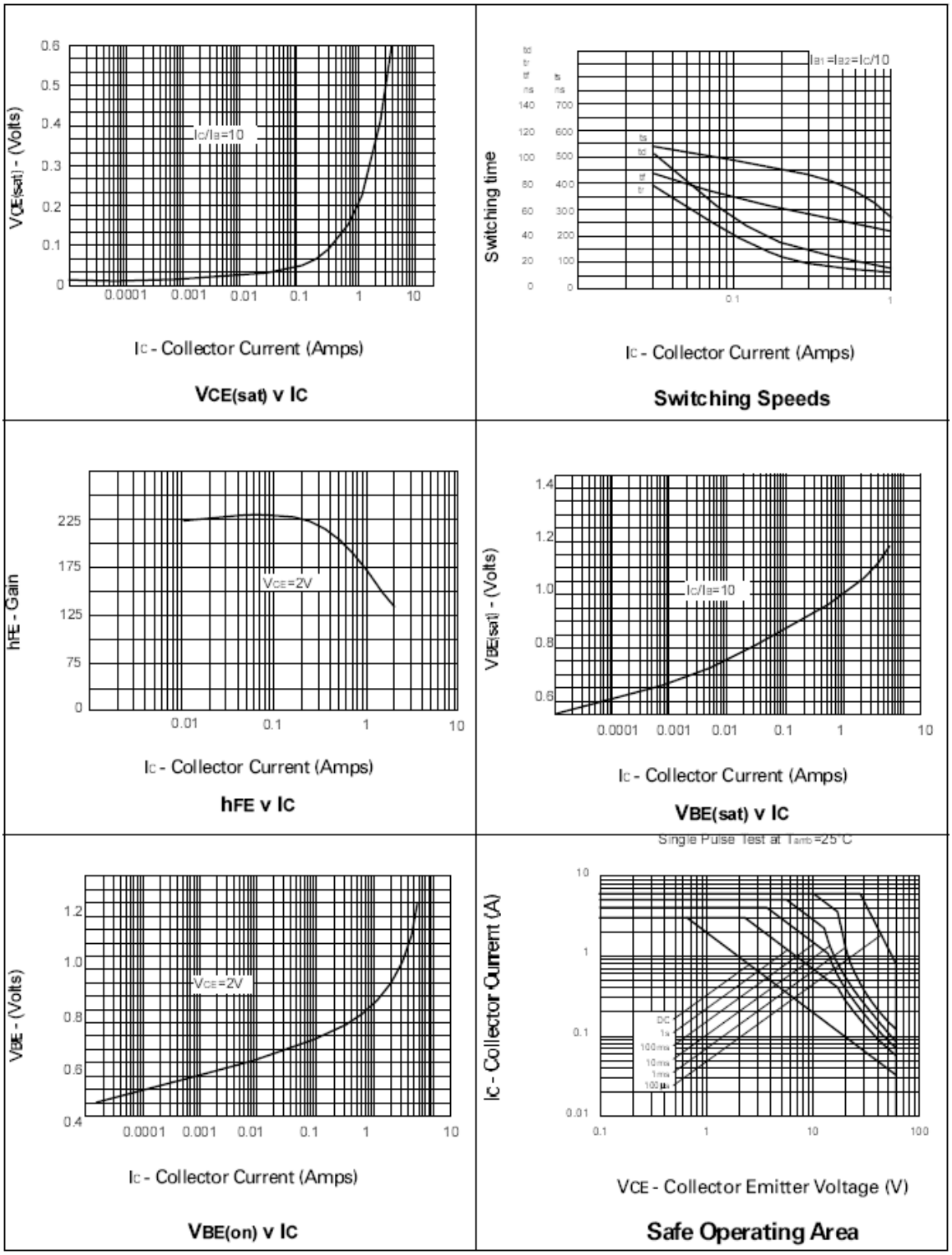
| PARAMETER | SYMBOL | VALUE | UNIT |
|---|---|---|---|
| Power Dissipation at $T_A$=25°C | $P_D$ | 2 | W |
| Operating and Storage Temperature Range | $T_J$ , $T_{STG}$ | -55 to 150 | °C |

**Electrical Characteristics** @ $T_A$= 25ºC unless otherwise specified

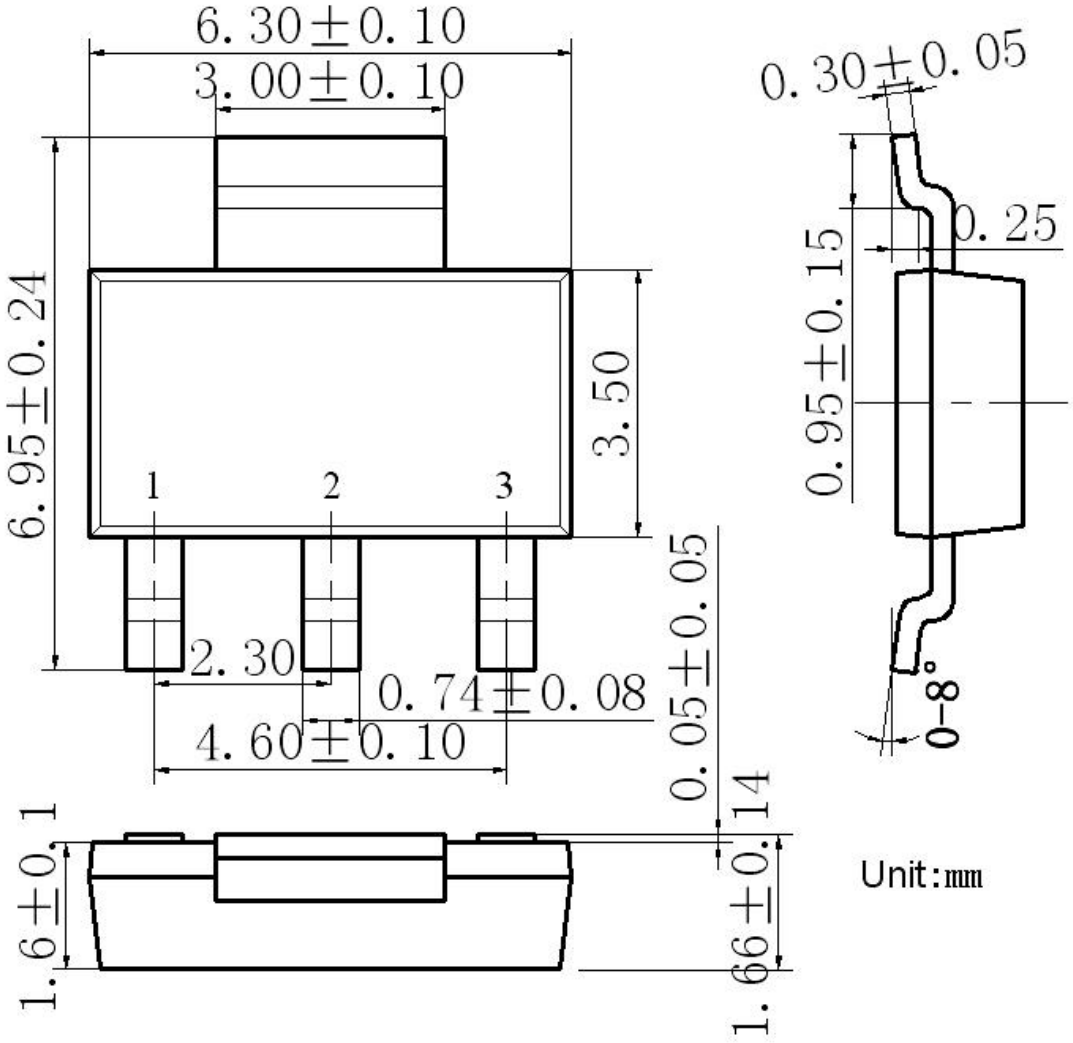
| PARAMETER | SYMBOL | TEST CONDITION | MIN | TYP | MAX | UNIT |
|---|---|---|---|---|---|---|
| Collector-Base Breakdown Voltage | $V_{(BR)CBO}$ | $I_C$= -100µA | -80 | | | V |
| Collector-Emitter Breakdown Voltage * | $V_{(BR)CEO}$ | $I_C$ = -10mA | -60 | | | V |
| Emitter-Base Breakdown Voltage | $V_{(BR)EBO}$ | $I_E$ = 100µA | -5 | | | V |
| Collector Cut-off Current | $I_{CBO}$ | $V_{CB}$ = -60V | | | -0.1 | µA |
| | | $V_{CB}$ = -60V, $T_{amb}$ = 100°C | | | -10 | µA |
| Emitter Cut-off Current | $I_{EBO}$ | $V_{EB}$= -4V | | | -0.1 | µA |
| Collector-Emitter Saturation Voltage * | $V_{CE(SAT)}$ | $I_C$ = -1A, $I_B$ = -100mA | | -0.15 | -0.3 | V |
| | | $I_C$ = -3A, $I_B$ = -300mA | | -0.45 | -0.6 | V |
| Base-Emitter Saturation Voltage * | $V_{CE(SAT)}$ | $I_C$ = -1A, $I_B$ = -100mA | | -0.9 | -1.25 | V |
| Base-Emitter Turn-On Voltage * | $V_{BE(ON)}$ | $I_C$ = -1A, $V_{CE}$ = -2V | | -0.8 | -1.25 | V |
| DC Current Gain * | $h_{FE}$ | $I_C$ = -50mA, $V_{CE}$ = -2V | 70 | 200 | | |
| | | $I_C$ = -500mA, $V_{CE}$ = -2V | 100 | 200 | 300 | |
| | | $I_C$ = -1A, $V_{CE}$ = -2V | 80 | 170 | | |
| | | $I_C$ = -2A, $V_{CE}$ = -2V | 40 | 150 | | |
| Current Gain-Bandwidth Product * | $f_T$ | $V_{CE}$ = -5V, $I_C$ = -100mA, f = 100MHz | 100 | 140 | | MHz |
| Turn-On Time | $t_{on}$ | $V_{CC}$ = -10V, $I_C$ = -500mA | | 40 | | ns |
| Turn-Off Time | $t_{off}$ | $I_{B1}$ = $I_{B2}$ = -50mA | | 450 | | ns |
| Output Capacitance * | $C_{obo}$ | $V_{CB}$ = -10V. f = 1MHz | | | 30 | pF |

* Measured under pulsed conditions. Pulse width = 300µs. Duty cycle ≤ 2%

## CHARACTERISTICS CURVES



**PACKAGE OUTLINE AND DIMENSION millimeters(mm)**
**SOT-223**




**1. BASE**
**2. COLLECTOR**
**3. EMITTER**

**Customer Notes:**

**Component Disposal Instructions**

1. CDIL Semiconductor Devices are RoHS compliant, customers are requested to please dispose as per prevailing Environmental Legislation of their Country.

2. In Europe, please dispose as per EU Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE).

**DISCLAIMER**

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