



**CHENMKO ENTERPRISE CO.,LTD**

**CHTA44ZPT**

*Lead free devices*

**SURFACE MOUNT  
NPN SILICON Transistor**

VOLTAGE 400 Volts CURRENT 0.3 Ampere

**APPLICATION**

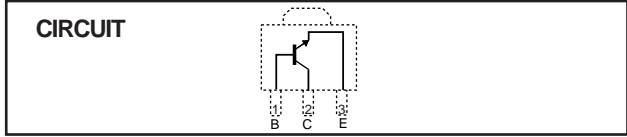
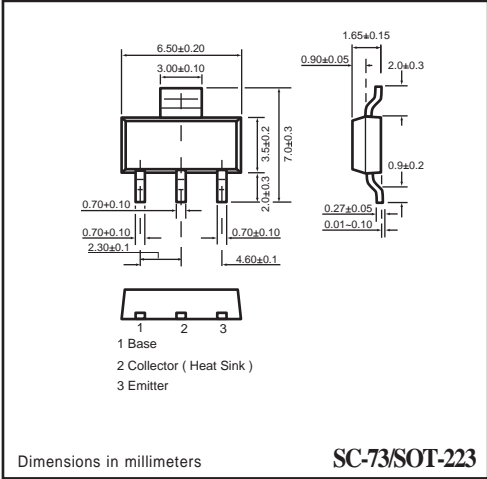
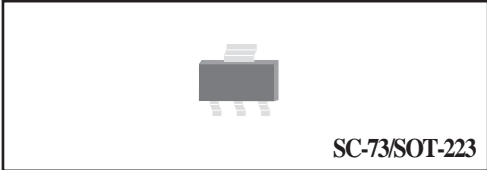
- \* Telephony and professional communication equipment.
- \* Other switching applications.

**FEATURE**

- \* Small flat package. ( SC-73/SOT-223 )
- \* Suitable for high packing density.
- \* High saturation current capability.

**CONSTRUCTION**

- \* NPN SILICON Transistor



**LIMITING VALUES**

In accordance with the Absolute Maximum Rating System (IEC 60134).

| SYMBOL           | PARAMETER                     | CONDITIONS                       | MIN. | MAX. | UNIT |
|------------------|-------------------------------|----------------------------------|------|------|------|
| V <sub>CB0</sub> | collector-base voltage        | open emitter                     | —    | 450  | V    |
| V <sub>CEO</sub> | collector-emitter voltage     | open base                        | —    | 400  | V    |
| V <sub>EBO</sub> | emitter-base voltage          | open collector                   | —    | 6.0  | V    |
| I <sub>C</sub>   | collector current (DC)        |                                  | —    | 300  | mA   |
| P <sub>tot</sub> | total power dissipation       | T <sub>amb</sub> ≤ 25 °C; note 1 | —    | 2    | W    |
| T <sub>stg</sub> | storage temperature           |                                  | -65  | +150 | °C   |
| T <sub>j</sub>   | junction temperature          |                                  | —    | 150  | °C   |
| T <sub>amb</sub> | operating ambient temperature |                                  | -65  | +150 | °C   |

**Note**

1. Transistor mounted on an FR4 printed-circuit board.

## RATING CHARACTERISTIC CURVES ( CHTA44ZPT )

### CHARACTERISTICS

$T_{amb} = 25\text{ }^{\circ}\text{C}$  unless otherwise specified.

| SYMBOL      | PARAMETER                            | CONDITIONS   | MIN.                 | MAX.               | UNIT |
|-------------|--------------------------------------|--|----------------------|--------------------|------|
| $I_{CBO}$   | collector cut-off current            | $V_{CB} = 400\text{ V}$  | –                    | 100                | nA   |
| $I_{EBO}$   | emitter cut-off current              | $V_{EB} = 4.0\text{ V}$  | –                    | 100                | nA   |
| $h_{FE}$    | DC current gain                      | $I_C = 1.0\text{ mA}; V_{CE} = 10\text{ V}$<br>$I_C = 10\text{ mA}; V_{CE} = 10\text{ V}$<br>$I_C = 50\text{ mA}; V_{CE} = 10\text{ V}$<br>$I_C = 100\text{ mA}; V_{CE} = 10\text{ V}$ | 40<br>50<br>45<br>20 | –<br>200<br>–<br>– |      |
| $V_{CEsat}$ | collector-emitter saturation voltage | $I_C = 1.0\text{ mA}; I_B = 0.1\text{ mA}$   | –                    | 0.40               | V    |
|             |                                      | $I_C = 10\text{ mA}; I_B = 1.0\text{ mA}$  | –                    | 0.50               | V    |
|             |                                      | $I_C = 50\text{ mA}; I_B = 5.0\text{ mA}$  | –                    | 0.75               | V    |
| $V_{BEsat}$ | base-emitter saturation voltage      | $I_C = 10\text{ mA}; I_B = 1.0\text{ mA}$  | –                    | 0.75               | V    |
| $C_{ob}$    | collector capacitance                | $I_E = I_E = 0; V_{CB} = 2.0\text{ V}; f = 1\text{ MHz}$   | –                    | 7.0                | pF   |
| $C_{ib}$    | emitter capacitance                  | $V_{EB} = 0.5\text{ V}; I_C = 0; f = 1.0\text{ MHz}$   | –                    | 130                | pF   |
| $f_T$       | transition frequency                 | $I_C = 10\text{ mA}; V_{CE} = 1.0\text{ V}; f = 10\text{ MHz}$   | 20                   | –                  | MHz  |