



CHENMKO ENTERPRISE CO.,LTD

Halogens free devices

**SURFACE MOUNT
PNP Digital Silicon Transistor**

VOLTAGE 50 Volts CURRENT 100 mAmpere

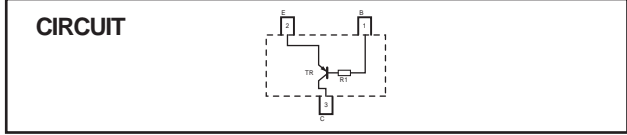
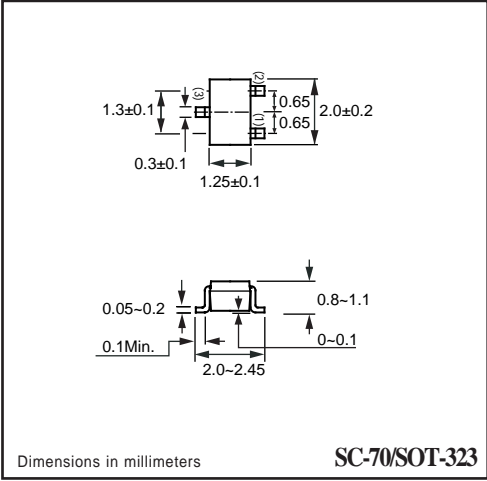
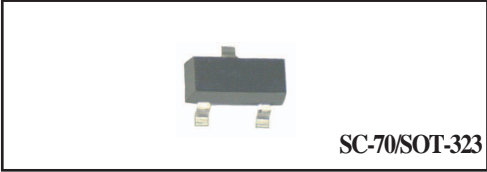
CHDTA144TUGP

APPLICATION
* Switching circuit, Inverter, Interface circuit, Driver circuit.

FEATURE
* Small surface mounting type. (SC-70/SOT-323)
* High current gain.
* Suitable for high packing density.
* Low collector-emitter saturation.
* High saturation current capability.
* Internal isolated PNP transistors in one package.
* Built in bias resistor(R1=47kΩ, Typ.)

CONSTRUCTION
* One PNP transistors and bias of thin-film resistors in one package.

MARKING
TU4



LIMITING VALUES
In accordance with the Absolute Maximum Rating System .

| SYMBOL | PARAMETER | CONDITIONS | VALUE | UNIT |
|--------|-----------------------------|----------------------------------|----------|------|
| Vcbo | Collector-Base voltage | | -50 | V |
| Vceo | Collector-Emitter voltage | | -50 | V |
| Vebo | Emitter-Base voltage | | -5 | V |
| Ic | Collector current | | -100 | mA |
| Pc | Collector Power dissipation | T _{amb} ≤ 25 °C, Note 1 | 200 | mW |
| Tstg | Storage temperature | | -55 +150 | °C |
| Tj | Junction temperature | | -55 +150 | °C |
| RθJ-s | Thermal resistance , Note 1 | junction - soldering point | 140 | °C/W |

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

RATING CHARACTERISTIC (CHDTA144TUGP)

CHARACTERISTICS

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

| SYMBOL | PARAMETER | CONDITIONS | MIN. | TYP. | MAX. | UNIT |
|----------------|--------------------------------------|---|-------|------|------|---------------|
| BVCBO | Collector-Base breakdown voltage | $I_C = -50\mu\text{A}$ | -50.0 | – | – | V |
| BVCEO | Collector-Emitter breakdown voltage | $I_C = -1\text{mA}$ | -50.0 | – | – | V |
| BVEBO | Emitter-Base breakdown voltage | $I_E = -50\mu\text{A}$ | -5.0 | – | – | V |
| VCE(sat) | Collector-Emitter Saturation voltage | $I_C = -5\text{mA}; I_B = -0.5\text{mA}$ | – | – | -0.3 | V |
| ICBO | Collector-Base current | $V_{CB} = -50\text{V}$ | – | – | -0.5 | μA |
| IEBO | Emitter-Base current | $V_{EB} = -4\text{V}$ | – | – | -0.5 | μA |
| hFE | DC current gain | $I_C = -1\text{mA}; V_{CE} = -5.0\text{V}$ | 100 | 250 | 600 | |
| R ₁ | Input resistor | | 32.9 | 47 | 61.1 | K Ω |
| f _T | Transition frequency | $I_E = 5\text{mA}, V_{CE} = -10.0\text{V}$ $f = 100\text{MHz}$ | – | 250 | – | MHz |

Note

1. Pulse test: $t_p \leq 300\mu\text{s}; \delta \leq 0.02$.

RATING CHARACTERISTIC CURVES (CHDTA144TUGP)

Typical Electrical Characteristics

Fig.1 DC current gain vs. collector current

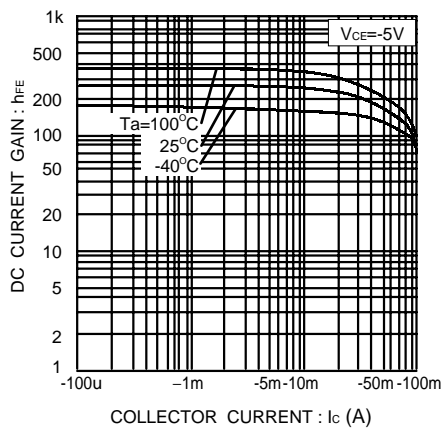


Fig.2 Collector-emitter saturation voltage vs. collector current

