



CHENMKO ENTERPRISE CO.,LTD

CHUMA4PT

SURFACE MOUNT

Dual Digital Silicon Transistor

VOLTAGE 50 Volts CURRENT 100 mAmpere

Lead free devices

APPLICATION

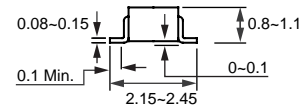
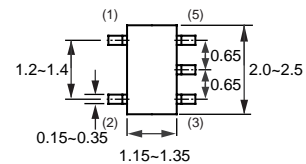
* Switching circuit, Inverter, Interface circuit, Driver circuit.

FEATURE

- * Small surface mounting type. (SC-88A/SOT-353)
- * High current gain.
- * Suitable for high packing density.
- * Low collector-emitter saturation.
- * High saturation current capability.
- * Two CHDTA114T chips in a package.
- * Built in bias resistor(R1=10kΩ, Typ.)



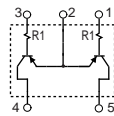
SC-88A/SOT353



Dimensions in millimeters

SC-88A/SOT353

CIRCUIT



LIMITING VALUES

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

| 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 | 150 | mW |
| Tstg | Storage temperature | | -55 +150 | °C |
| Tj | Junction temperature | | 150 | °C |

Note

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

RATING CHARACTERISTIC (CHUMA4PT)

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 |
| $V_{CE(sat)}$ | Collector-Emitter Saturation voltage | $I_C = -10\text{mA}; I_B = -1\text{mA}$ | – | – | -0.3 | V |
| I_{CBO} | Collector-Base current | $V_{CB} = -50\text{V}$ | – | – | -0.5 | μA |
| I_{EBO} | Emitter-Base current | $V_{EB} = -4\text{V}$ | – | – | -0.5 | μA |
| h_{FE} | DC current gain | $I_C = -1\text{mA}; V_{CE} = -5.0\text{V}$ | 100 | 250 | 600 | |
| R_1 | Input resistor | | 7 | 10 | 13 | $\text{K}\Omega$ |
| 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 (CHUMA4PT)

Typical Electrical Characteristics

Fig.1 DC current gain vs. collector current

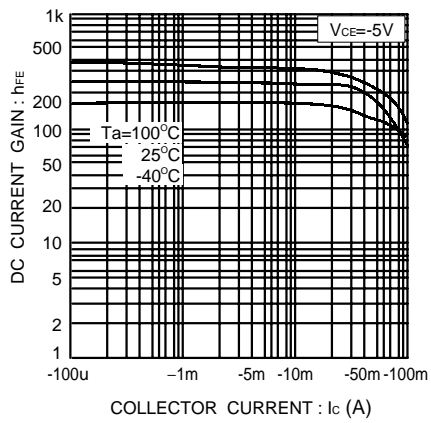


Fig.2 Collector-emitter saturation voltage vs. collector current

