



CHENMKO ENTERPRISE CO.,LTD

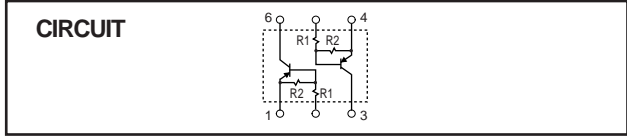
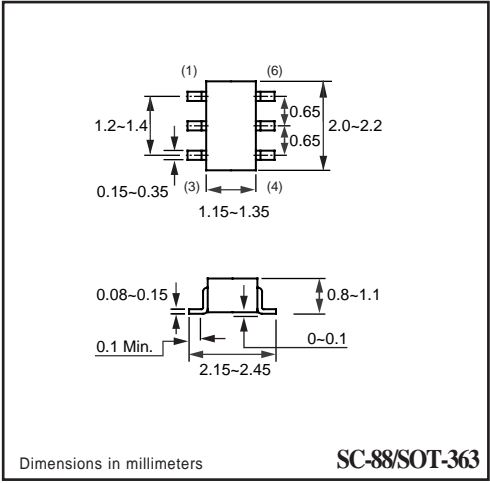
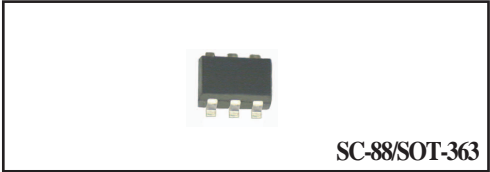
CHUMB9PT

Lead free devices

SURFACE MOUNT
Dual Digital Silicon Transistor
 VOLTAGE 50 Volts CURRENT 70 mAmpere

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

FEATURE
 * Small surface mounting type. (SC-88/SOT-363)
 * High current gain.
 * Suitable for high packing density.
 * Low collector-emitter saturation.
 * High saturation current capability.
 * Two CHDTA114Y chips in a package.
 * Built in bias resistor(R1=10kΩ, Typ.)



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

| SYMBOL | PARAMETER | CONDITIONS | MIN. | MAX. | UNIT |
|----------------------|-------------------------|----------------------------------|------|------|------|
| V _{CC} | Supply voltage | | - | -50 | V |
| V _{IN} | Input voltage | | -40 | +6 | V |
| I _o | DC Output current | | - | -70 | mA |
| I _{C(Max.)} | | | - | -100 | |
| P _{TOT} | Total power dissipation | T _{amb} ≤ 25 °C, Note 1 | - | 150 | mW |
| T _{STG} | Storage temperature | | -55 | +150 | °C |
| T _J | Junction temperature | | - | 150 | °C |

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

RATING CHARACTERISTIC (CHUMB9PT)

CHARACTERISTICS

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

| SYMBOL | PARAMETER | CONDITIONS | MIN. | TYP. | MAX. | UNIT |
|--------------|----------------------|---|------|------|-------|------------------|
| $V_{I(off)}$ | Input off voltage | $I_o = -100\mu\text{A}; V_{CC} = -5.0\text{V}$ | -0.3 | - | - | V |
| $V_{I(on)}$ | Input on voltage | $I_o = -1\text{mA}; V_o = -0.3\text{V}$ | - | - | -1.4 | V |
| $V_{O(on)}$ | Output voltage | $I_o = -5\text{mA}; I_i = -0.25\text{mA}$ | - | -0.1 | -0.3 | V |
| I_i | Input current | $V_i = -5\text{V}$ | - | - | -0.88 | mA |
| $I_{C(off)}$ | Output current | $V_i = 0\text{V}; V_{CC} = -50\text{V}$ | - | - | -0.5 | μA |
| h_{FE} | DC current gain | $I_o = -5\text{mA}; V_o = -5.0\text{V}$ | 68 | - | - | |
| R_1 | Input resistor | | 7.0 | 10.0 | 13.0 | $\text{K}\Omega$ |
| R_2/R_1 | Resistor ratio | | 3.7 | 4.7 | 5.7 | |
| 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 (CHUMB9PT)

Typical Electrical Characteristics

Fig.1 Input voltage vs. output current (ON characteristics)

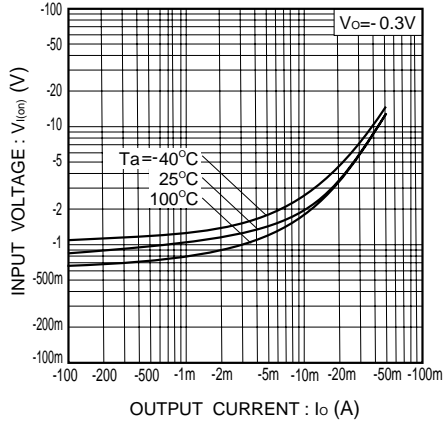


Fig.2 Output current vs. input voltage (OFF characteristics)

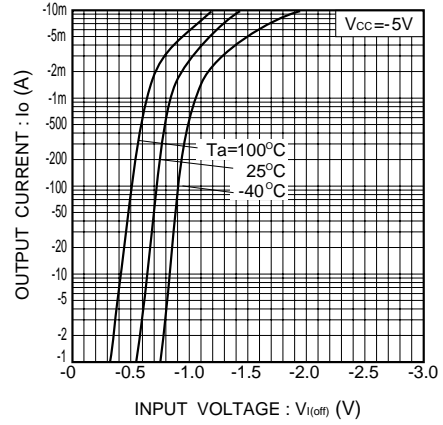


Fig.3 DC current gain vs. output current

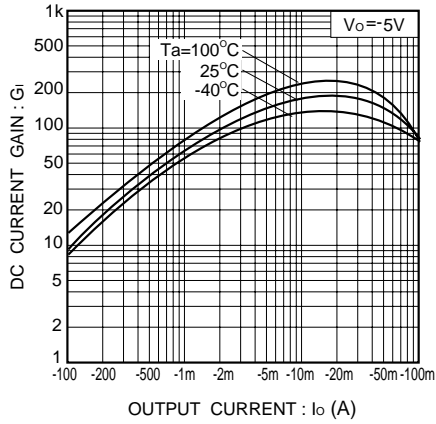


Fig.4 Output voltage vs. output current

