# RT2N14M

COMPOSITE TRANSISTOR WITH RESISTOR
FOR SWITCHING APPLICATION
SILICON NPN EPITAXIAL TYPE

## DESCRIPTION

RT2N14M is a composite transistor with built-in bias resistor

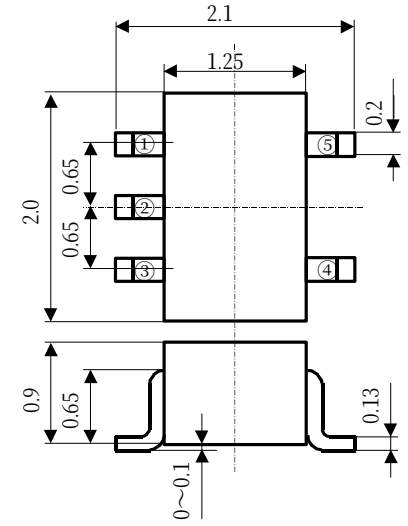
## FEATURE

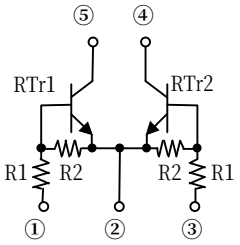
- Built-in bias resistor ( R1=10KΩ , R2=47KΩ )
- Mini package for easy mounting

## APPLICATION

Inverted circuit , switching circuit , interface circuit , driver circuit

OUTLINE DRAWING Unit:mm



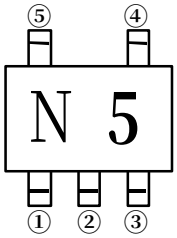

TERMINAL CONNECTOR
①: BASE1
②: EMITTER (COMMON)
③: BASE2
④: COLLECTOR2
⑤: COLLECTOR1

JEITA: SC-88A

## MAXIMUM RATINGS (Ta=25°C) (RTr1, RTr2)

| Symbol | Parameter | Ratings | Unit |
|---|---|---|---|
| $V_{CBO}$ | Collector to Base voltage | 50 | V |
| $V_{EBO}$ | Emitter to Base voltage | 6 | V |
| $V_{CEO}$ | Collector to Emitter voltage | 50 | V |
| $I_C$ | Collector current | 100 | mA |
| $I_{CM}$ | Peak Collector current | 200 | mA |
| $P_C$ | Collector dissipation (Total Ta=25°C) | 150 | mW |
| $T_j$ | Junction temperature | +150 | °C |
| $T_{stg}$ | Storage temperature | -55～+150 | °C |

MARKING



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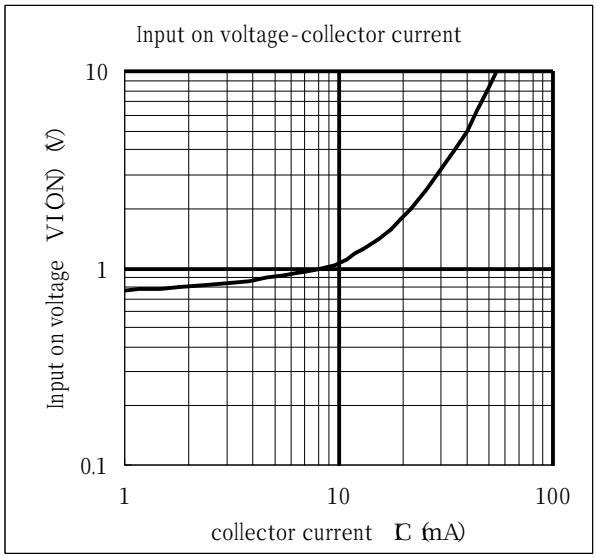
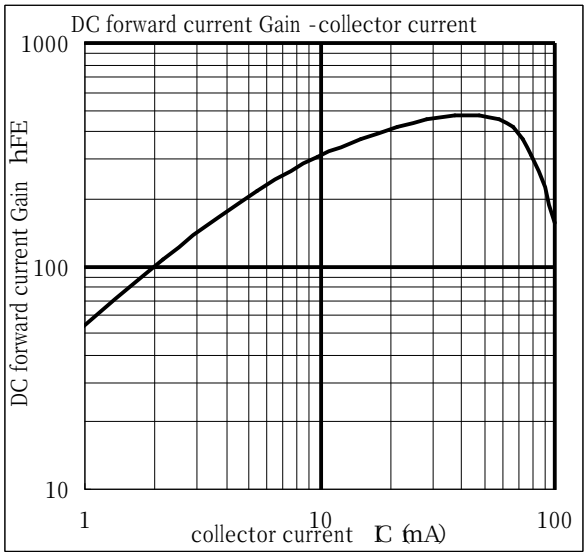
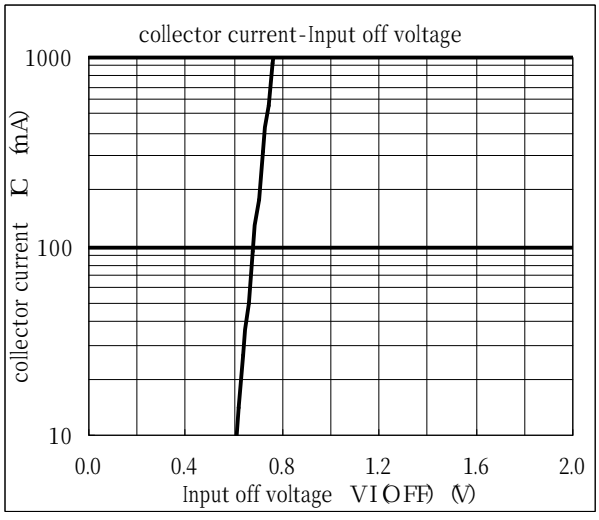
ELECTRICAL CHARACTERISTICS (Ta=25°C) (RTr1, RTr2)

| Symbol | Parameter | Test conditions | Limits | | | Unit |
|---|---|---|---|---|---|---|
| | | | Min | Typ | Max | |
| $V_{(BR)CBO}$ | Collector to Emitter break down voltage | $I_C$=100μA, $R_{BE}$=∞ | 50 | - | - | V |
| $I_{CBO}$ | Collector cut off current | $V_{CB}$=50V, $I_E$=0 | - | - | 0.1 | μA |
| $h_{FE}$ | DC forward current gain | $V_{CE}$=5V, IC=5mA | 50 | - | - | - |
| $V_{CE(sat)}$ | Collector to Emitter saturation voltage | $I_C$=10mA, $I_B$=0.5mA | - | 0.1 | 0.3 | V |
| $V_{I(ON)}$ | Input on voltage | $V_{CE}$=0.2V, $I_C$=5mA | - | 1.0 | 1.8 | V |
| $V_{I(OFF)}$ | Input off voltage | $V_{CE}$=5V, $I_C$=100μA | 0.4 | 0.7 | - | V |
| $R_1$ | Input resistor | | 7 | 10 | 13 | KΩ |
| $R_2/R_1$ | Resistor ratio | | 4.2 | 4.7 | 5.1 | - |
| $f_T$ | Gain band width product | $V_{CE}$=6V, $I_E$=-10mA | | 200 | | MHz |

TYPICAL Characteristics (Tr1, Tr2)



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