

RT3T14M-T150

Composite Transistor With Resistor
For Switching Application
Silicon Epitaxial Type

AEC-Q101 Compliance

DESCRIPTION

RT3T14M is composite transistor built with RT1N144 chip and RT1P144 chip in SC-88 package.

FEATURE

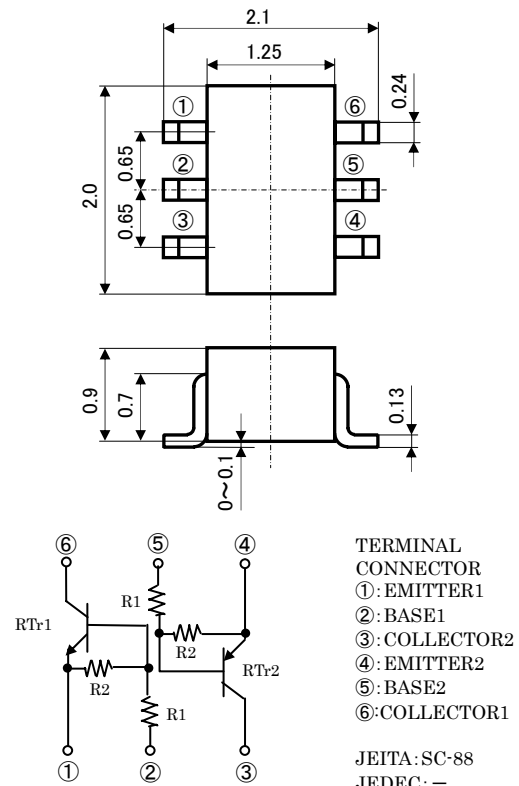
- Silicon epitaxial type
- Each transistor elements are independent.
- Mini package for easy mounting

APPLICATION

- Inverted circuit, Switching circuit,
- Interface circuit, Driver circuit

OUTLINE DRAWING

Unit: mm

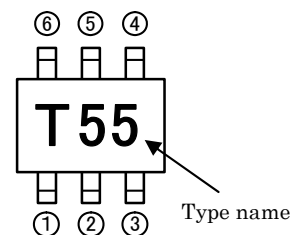


MAXIMUM RATING (Ta=25°C) (RTr1_NPN, RTr2_PNP)

| SYMBOL | PARAMETER | RATING | UNIT |
|------------------|------------------------------|----------|------|
| V _{CB0} | Collector to Base voltage | 50 | V |
| V _{EB0} | Emitter to Base voltage | 6 | V |
| V _{CEO} | Collector to Emitter voltage | 50 | V |
| V _{IN} | Input voltage | 40 | V |
| I _C | Collector current | 100 | mA |
| I _{CM} | Peak Collector current | 200 | mA |
| P _T | Total dissipation | 200 | mW |
| T _j | Junction temperature | +150 | °C |
| T _{stg} | Storage temperature | -55~+150 | °C |

※PNP built in transistor of "—" sign is abbreviation.

MARKING



ELECTRICAL CHARACTERISTICS (Ta=25°C) (RTr1_NPN, RTr2_PNP)

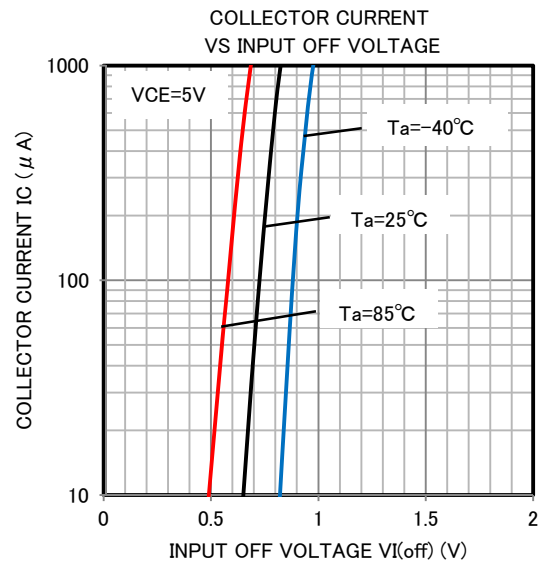
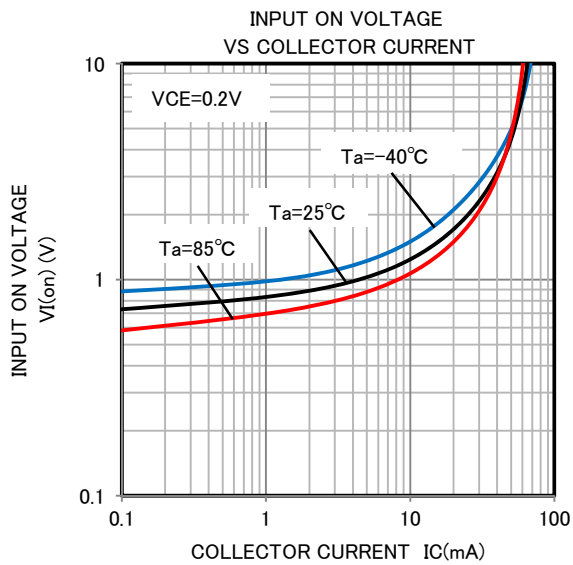
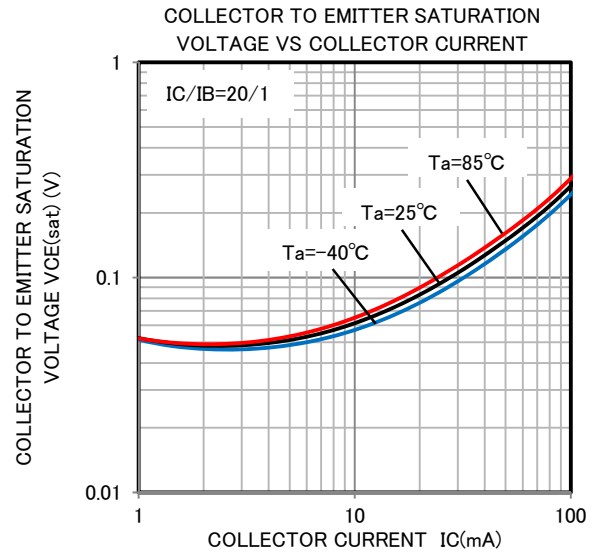
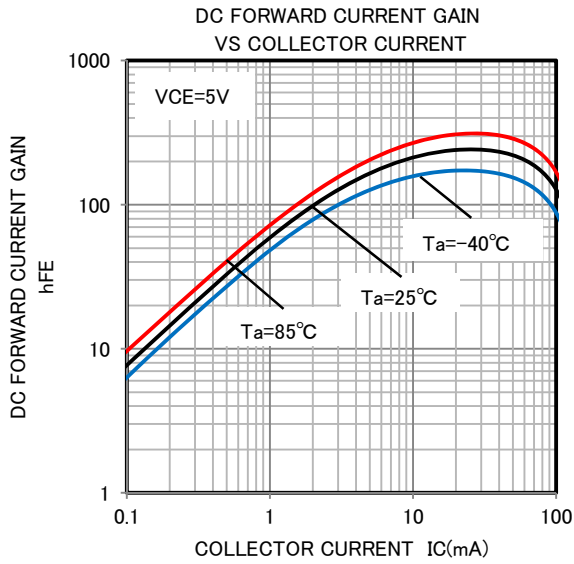
| Symbol | Parameter | Test conditions | Limits | | | Unit | |
|----------------------|---|---|--------|-----|-----|------|-----|
| | | | Min | Typ | Max | | |
| V _{(BR)CEO} | Collector to Emitter breakdown voltage | I _C =100μA, R _{BE} =∞ | 50 | — | — | V | |
| I _{CB0} | Collector cut off current | V _{CB} =50V, I _E =0 | — | — | 0.1 | μA | |
| I _{EB0} | Emitter cut off current | V _{EB} =5V, I _C =0 | 70 | 88 | 119 | μA | |
| h _{FE} | DC forward current gain | V _{CE} =5V, I _C =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 | — | 7.0 | 10 | 13 | kΩ | |
| R _{2/R1} | Resistor ratio | — | 4.2 | 4.7 | 5.1 | — | |
| f _T | Gain band width product | V _{CE} =6V, I _E =10mA | RTr1 | — | 200 | — | MHZ |
| | | | RTr2 | — | 150 | — | |

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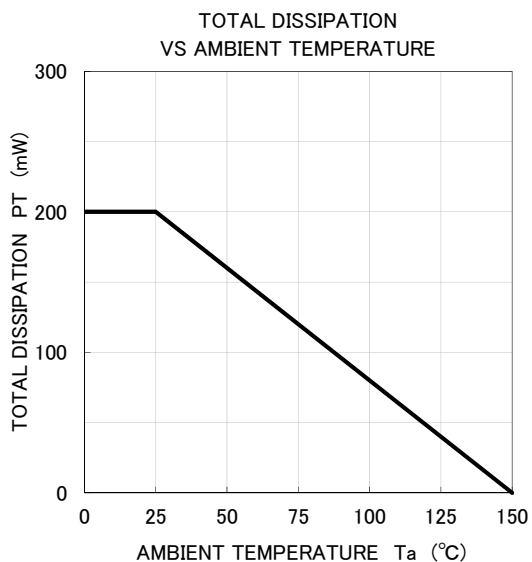
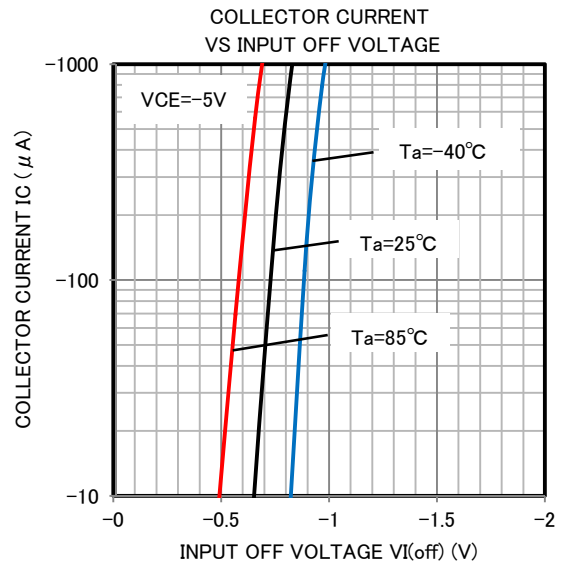
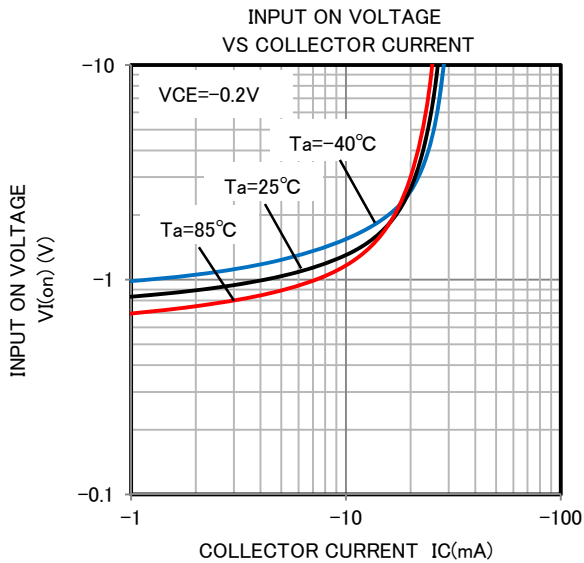
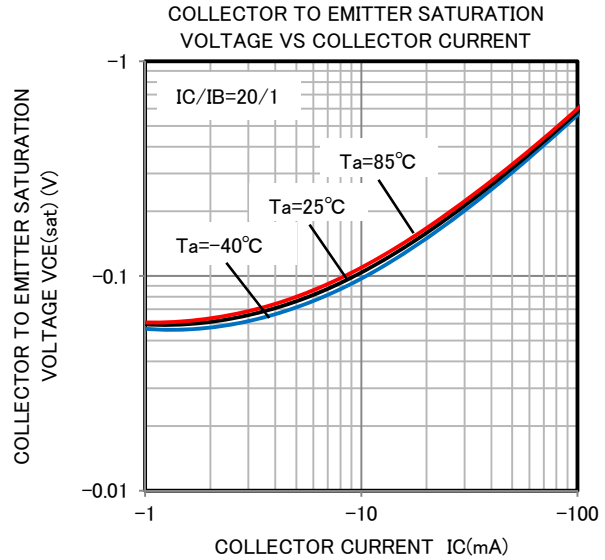
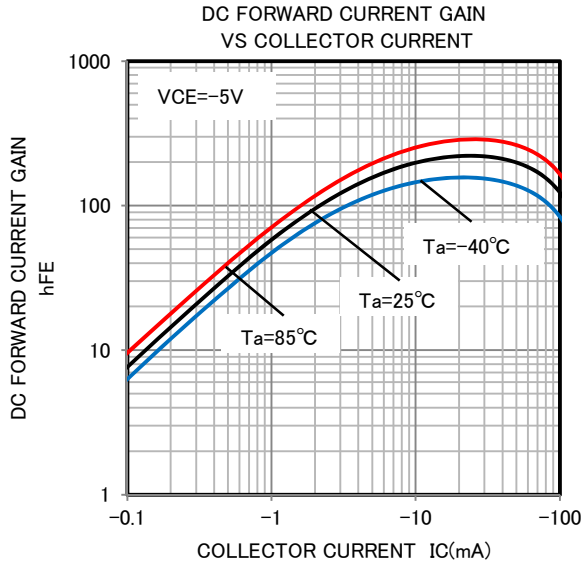
TYPICAL CHARACTERISTICS (RT_r1_NPN)



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TYPICAL CHARACTERISTICS (RT_r 2_PNP)





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