

RT3TDDU

Composite Transistor With Resistor
For Switching Application
Silicon Epitaxial Type

DESCRIPTION

RT3TDDU is a composite transistor built with two RT1N237 chip and RT1P237 chip in SC-75A package.

FEATURE

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

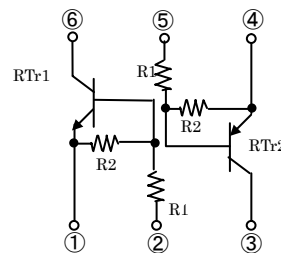
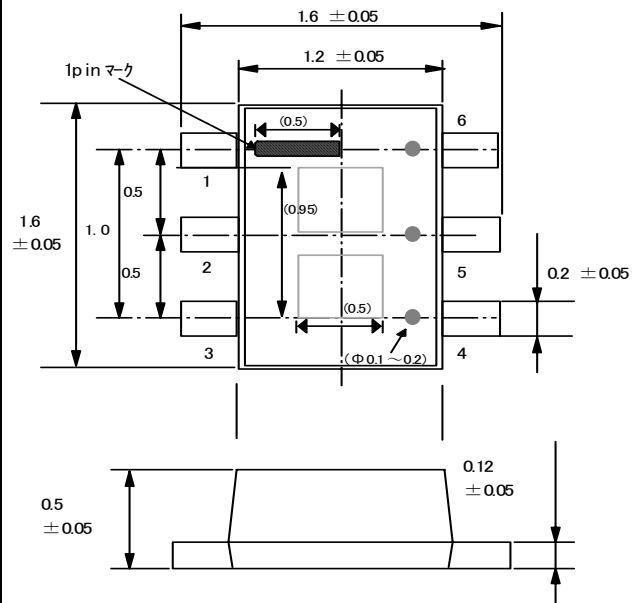
APPLICATION

- Inverted circuit, switching circuit,
- interface circuit, driver circuit

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

OUTLINE DRAWING

Unit: mm



TERMINAL CONNECTOR

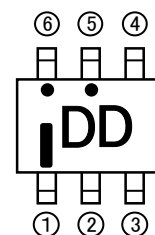
- ①: EMITTER1
- ②: BASE1
- ③: COLLECTOR2
- ④: EMITTER2
- ⑤: BASE2
- ⑥: COLLECTOR1

JEITA: —
ISAHAYA: USM6F

MAXIMUM RATING (Ta=25°C)

| SYMBOL | PARAMETER | RATING | UNIT |
|--------|--|------------|------|
| VCBO | Collector to Base voltage | 50 | V |
| VEBO | Emitter to Base voltage | 6 | V |
| VCEO | Collector to Emitter voltage | 50 | V |
| VIN | Input Voltage | 12 | V |
| IC | Collector current | 100 | mA |
| ICM | Peak Collector current | 200 | mA |
| PC | Collector dissipation (Total, Ta=25°C) | 125 | mW |
| Tj | Junction temperature | +150 | °C |
| Tstg | Storage temperature | -55 ~ +150 | °C |

MARKING





Marketing division, Marketing planning department

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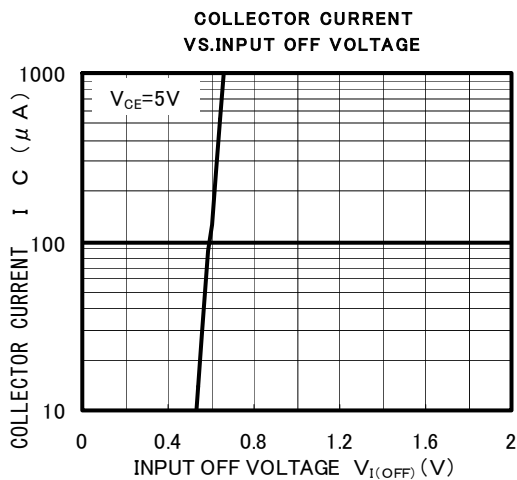
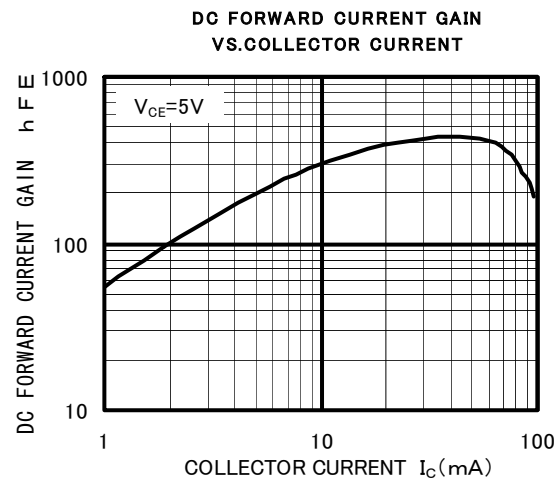
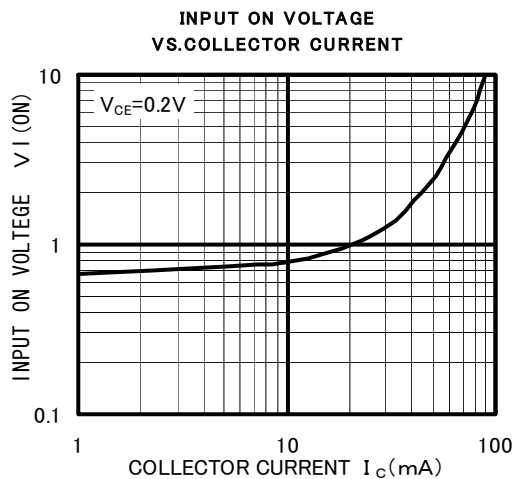
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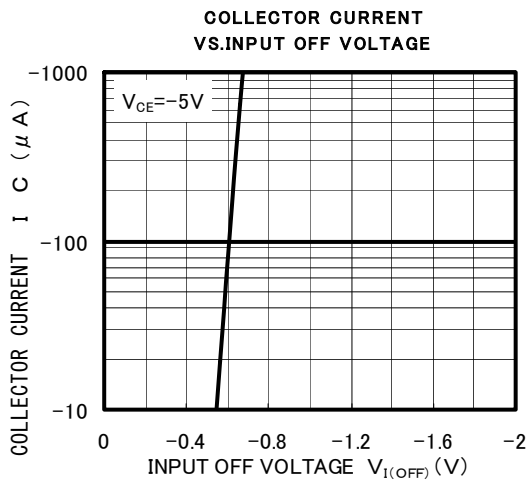
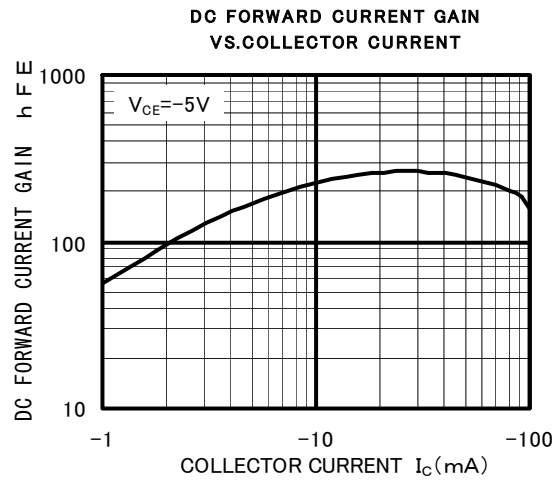
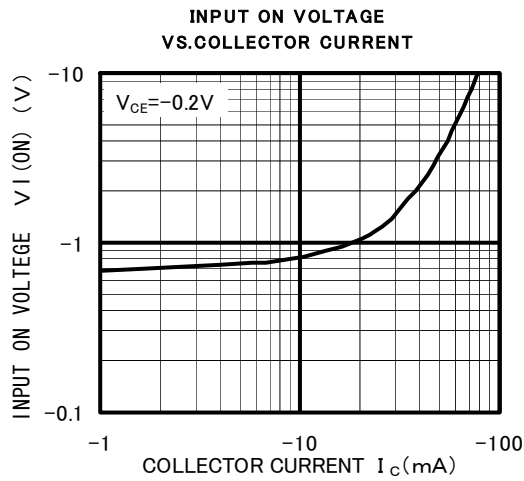
ELECTRICAL CHARACTERISTICS (Ta=25°C) (Tr1,Tr2 common)

| Symbol | Parameter | Test conditions | Limits | | | Unit |
|----------|---|---|--|-----|-----|------|
| | | | Min | Typ | Max | |
| V(BR)CEO | Collector to Emitter break down voltage | I _c =100μA, R _{BE} =∞ | 50 | | | V |
| ICBO | Collector cut off current | V _{CB} =50V, I _E =0 | | | 0.1 | μA |
| hFE | DC forward current gain | V _{CE} =5V, I _C =10mA | 80 | | | - |
| VCE(sat) | Collector to Emitter saturation voltage | I _C =10mA, I _B =0.5mA | | 0.1 | 0.3 | V |
| VI(ON) | Input on voltage | V _{CE} =0.2V, I _C =5mA | | 0.7 | 1.1 | V |
| VI(OFF) | Input off voltage | V _{CE} =5V, I _C =100μA | 0.5 | 0.6 | | V |
| R1 | Input resistor | | 1.5 | 2.2 | 2.9 | KΩ |
| R2/R1 | Resistor ratio | | 17 | 22 | 26 | - |
| fT | Gain band width product | Tr1 | V _{CE} =6V, I _E =-10mA | | 200 | MHz |
| | | Tr2 | V _{CE} =6V, I _E =10mA | | 150 | |

TYPICAL CHARACTERISTICS (Tr1)



TYPICAL CHARACTERISTICS (Tr2)





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