Panasonic

# DRC3144V0L

## Silicon NPN epitaxial planar type

For digital circuits
Complementary to DRA3144V
DRC9144V in SSSMini3 type package

■ Features

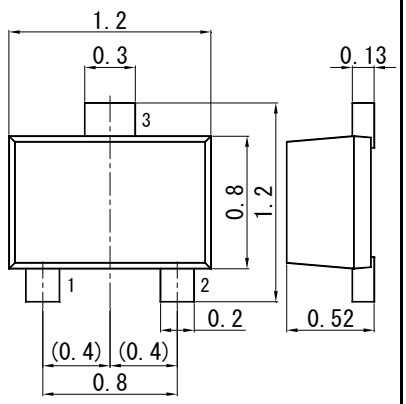
- Low collector-emitter saturation voltage Vce(sat)
- Halogen-free / RoHS compliant
  (EU RoHS / UL-94 V-0 / MSL:Level 1 compliant)

■ Marking Symbol: NJ

■ Packaging

Embossed type (Thermo-compression sealing) : 10 000 pcs / reel (standard)

Unit: mm



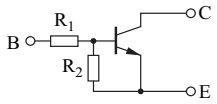

1. Base
2. Emitter
3. Collector

| | |
|---|---|
| Panasonic | SSSMini3-F2-B |
| JEITA | SC-105AA |
| Code | SOT-723 |

■ Absolute Maximum Ratings Ta = 25 °C

| Parameter | Symbol | Rating | Unit |
|---|---|---|---|
| Collector-base voltage (Emitter open) | VCBO | 50 | V |
| Collector-emitter voltage (Base open) | VCEO | 50 | V |
| Collector current | IC | 100 | mA |
| Total power dissipation | PT | 100 | mW |
| Junction temperature | Tj | 150 | °C |
| Operating ambient temperature | Topr | -40 to +85 | °C |
| Storage temperature | Tstg | -55 to +150 | °C |

Internal Connection




| | | | |
|---|---|---|---|
| Resistance value | R1 | 47 | kΩ |
| | R2 | 10 | kΩ |

■ Electrical Characteristics Ta = 25 °C ± 3 °C

| Parameter | Symbol | Conditions | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|
| Collector-base voltage (Emitter open) | VCBO | IC = 10 µA, IE = 0 | 50 | | | V |
| Collector-emitter voltage (Base open) | VCEO | IC = 2 mA, IB = 0 | 50 | | | V |
| Collector-base cutoff current (Emitter open) | ICBO | VCB = 50 V, IE = 0 | | | 0.1 | µA |
| Collector-emitter cutoff current (Base open) | ICEO | VCE = 50 V, IB = 0 | | | 0.5 | µA |
| Emitter-base cutoff current (Collector open) | IEBO | VEB = 6 V, IC = 0 | | | 0.2 | mA |
| Forward current transfer ratio | hFE | VCE = 10 V, IC = 5 mA | 30 | | | - |
| Collector-emitter saturation voltage | VCE(sat) | IC = 10 mA, IB = 0.5 mA | | | 0.25 | V |
| Input voltage | Vi(on) | VCE = 0.2 V, IC = 5 mA | 6.3 | | | V |
| | Vi(off) | VCE = 5 V, IC = 100 µA | | | 1.9 | V |
| Input resistance | R1 | | -30% | 47 | +30% | kΩ |
| Resistance ratio | R1/R2 | | 3.7 | 4.7 | 5.7 | - |

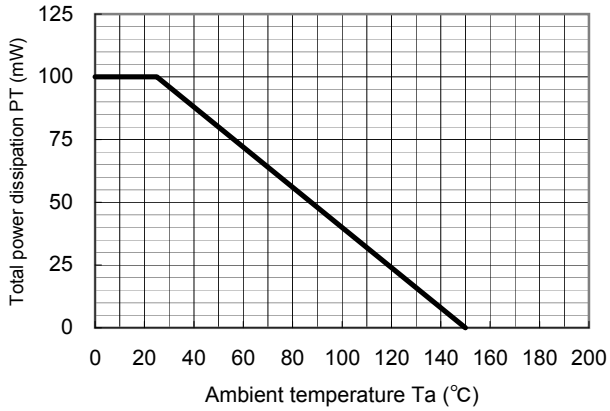
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 Measuring methods for transistors.



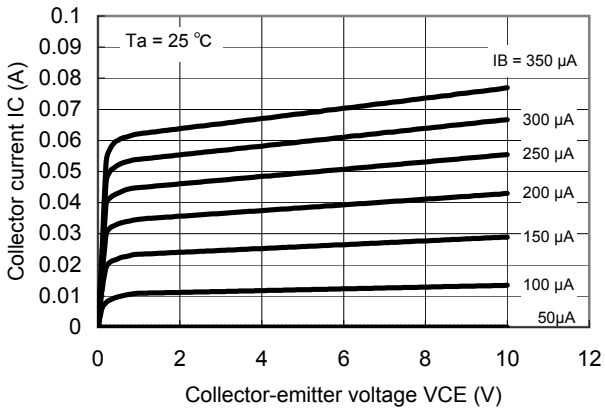
Established : 2010-03-26
Revised : 2014-03-20

## Technical Data ( reference )

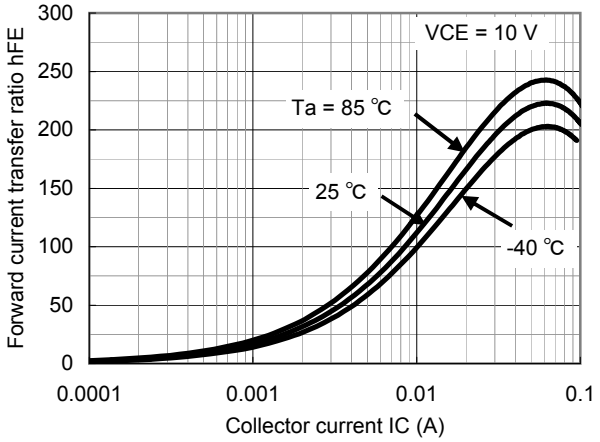
PT - Ta



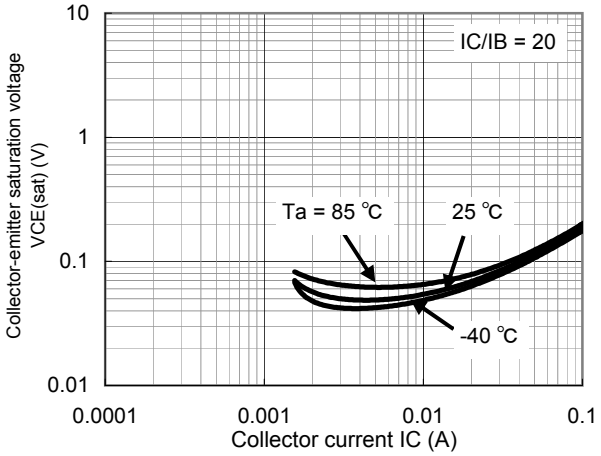

IC - VCE



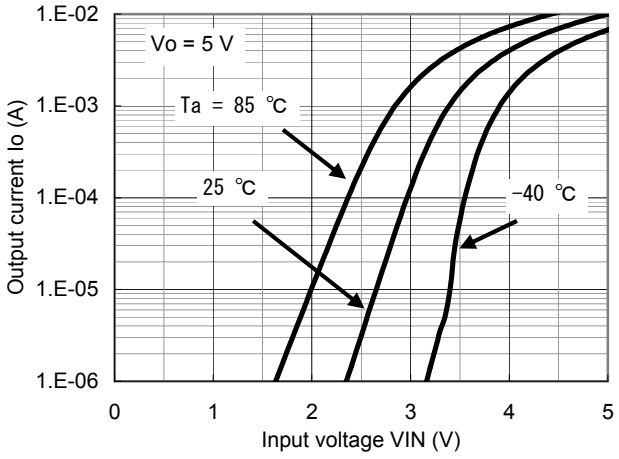

hFE - IC



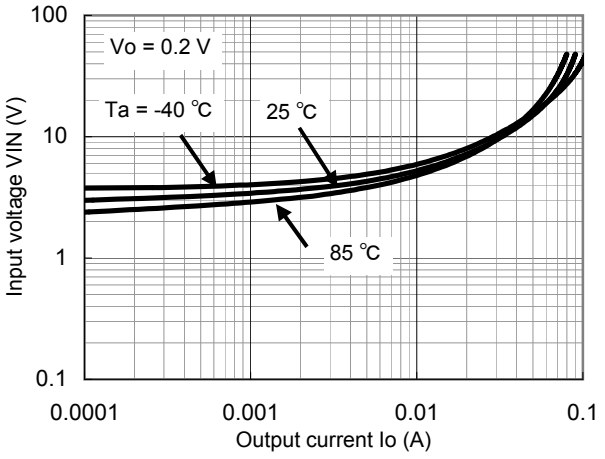

VCE(sat) - IC




Io - VIN




VIN - Io



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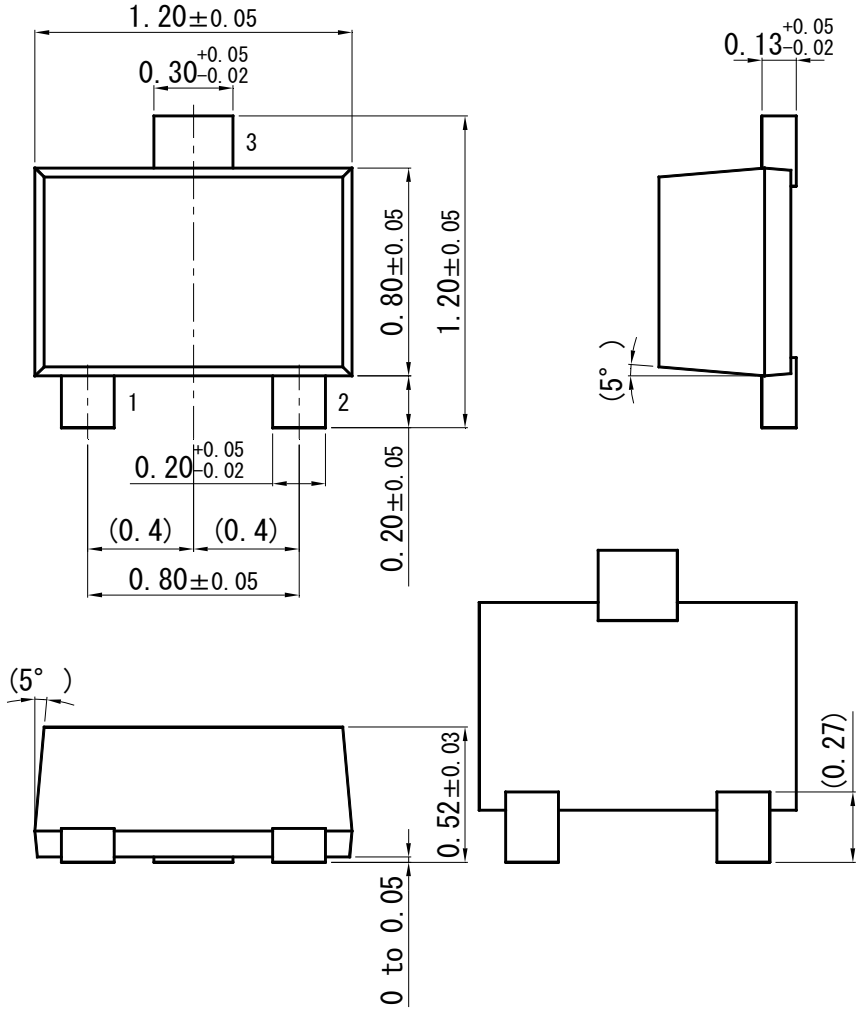
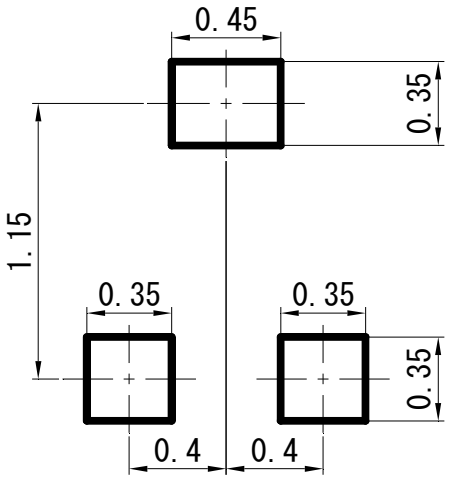
# SSSMini3-F2-B

Unit: mm




■ Land Pattern (Reference) (Unit: mm)



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