



DRC5143T0L

Silicon NPN epitaxial planar type

For digital circuits

Complementary to DRA5143T

DRC2143T in SMini3 type package

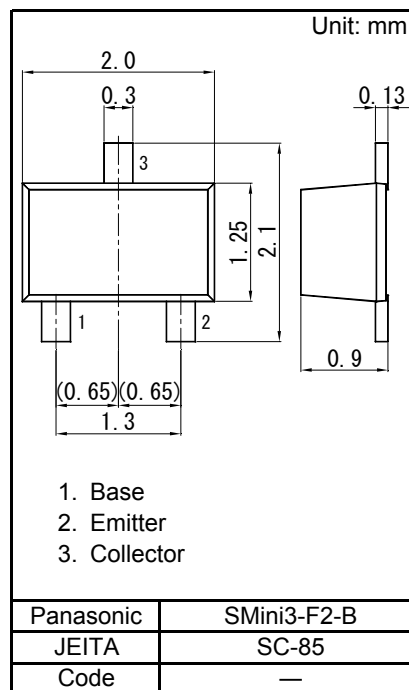
■ Features

- High forward current transfer ratio hFE with excellent linearity
- Low collector-emitter saturation voltage Vce(sat)
- Halogen-free / RoHS compliant
 (EU RoHS / UL-94 V-0 / MSL:Level 1 compliant)

■ Marking Symbol: NA

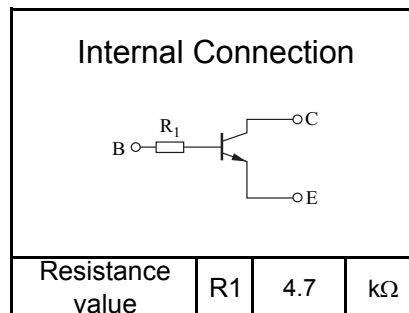
■ Packaging

Embossed type (Thermo-compression sealing) : 3 000 pcs / reel (standard)



■ 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 | 150 | mW |
| Junction temperature | Tj | 150 | °C |
| Operating ambient temperature | Topr | -40 to +85 | °C |
| Storage temperature | Tstg | -55 to +150 | °C |



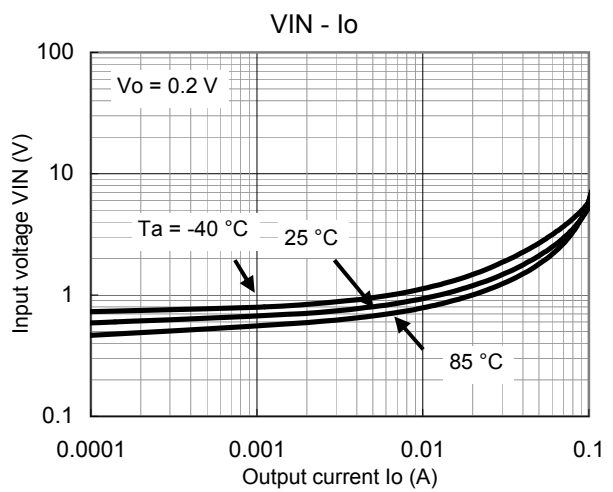
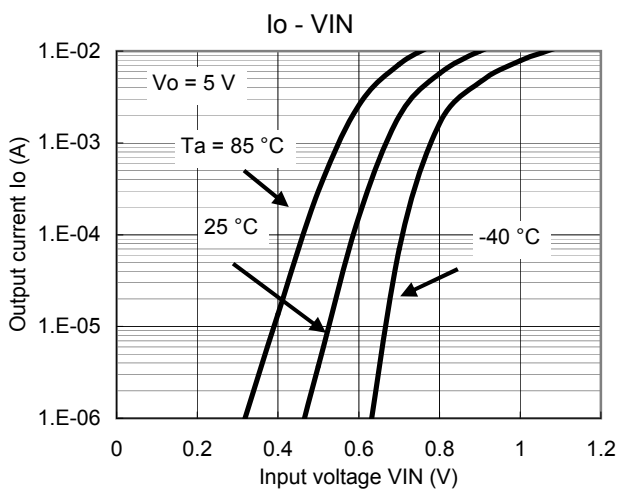
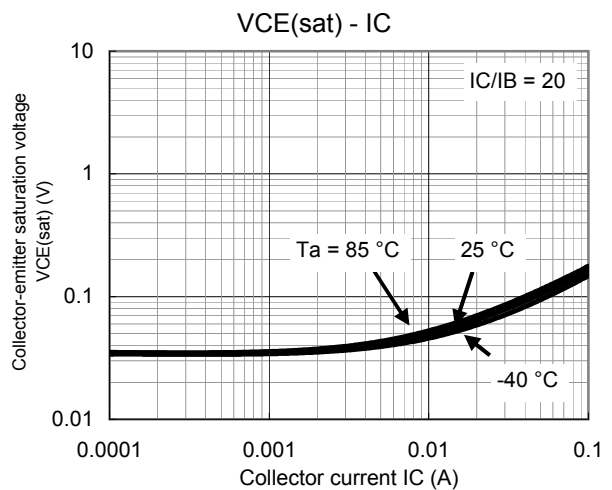
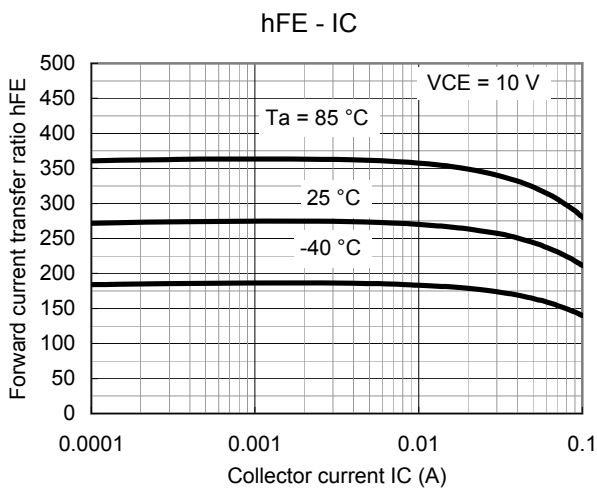
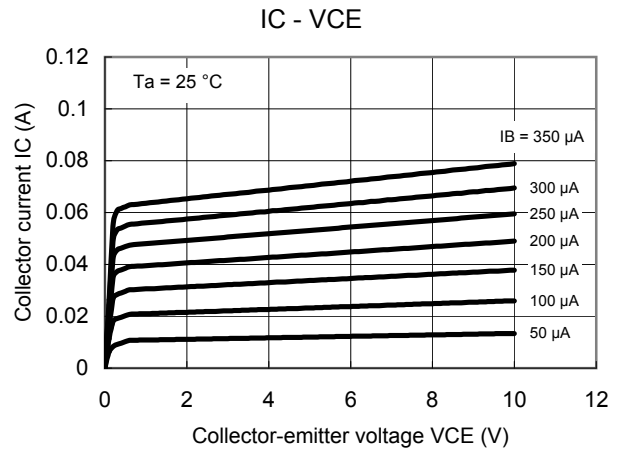
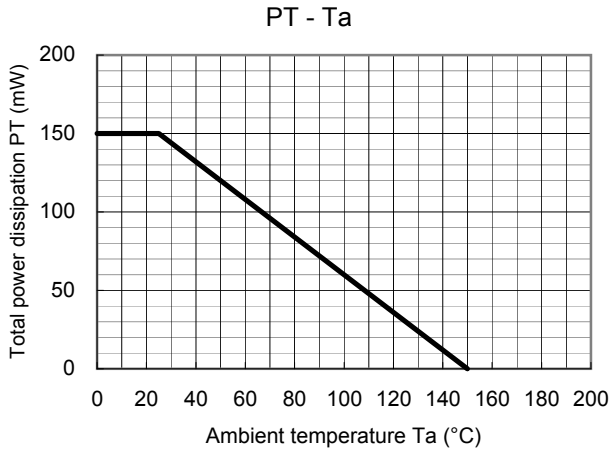
■ Electrical Characteristics Ta = 25 °C ± 3 °C

| 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 | | | 0.01 | mA |
| Forward current transfer ratio | hFE | VCE = 10 V, IC = 5 mA | 160 | | 460 | - |
| 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 | 1.0 | | | V |
| | Vi(off) | VCE = 5 V, IC = 100 μA | | | 0.4 | V |
| Input resistance | R1 | | -30% | 4.7 | +30% | kΩ |

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



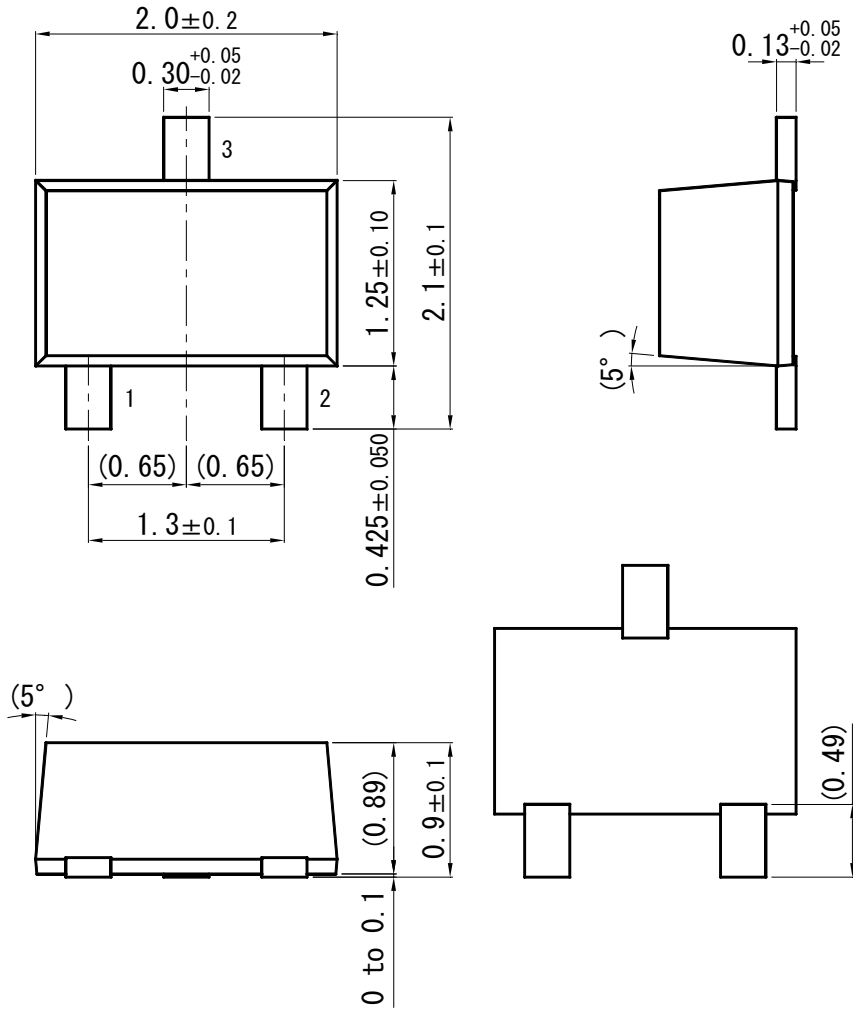
Technical Data (reference)



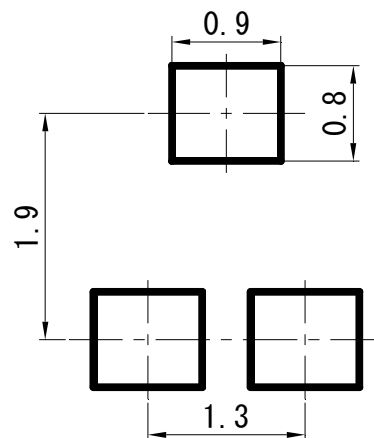


SMini3-F2-B

Unit: mm



■ Land Pattern (Reference) (Unit: mm)



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