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Transistors with Built-in Resistor

DRC3144W0L

Panasonic DRC3144W0L

Silicon NPN epitaxial planar type

For digital circuits Complementary to DRA3144W DRC9144W 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)

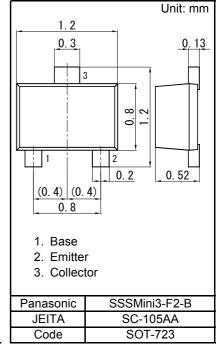
■ Marking Symbol: NK

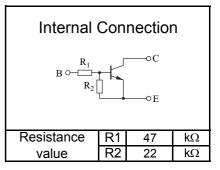
Packaging

Embossed type (Thermo-compression sealing): 10 000 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 | 100 | 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

Established: 2009-10-27

: 2014-03-26

Revised

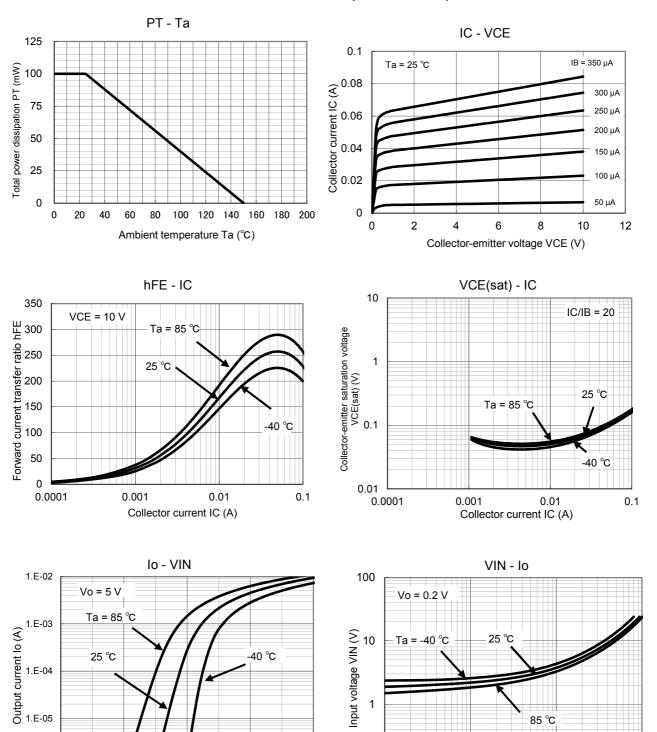
| Parameter | Symbol | Conditions | Min | Тур | Max | Unit |
|--|----------|-------------------------|------|------|------|------|
| Collector-base voltage (Emitter open) | VCBO | IC = 10 μA, IE = 0 | 50 | | | V |
| Collector-emitter voltage (Base open) | VCEO | IC = 2 mA, IB = 0 | 50 | | | V |
| Collector-base cutoff current (Emitter open) | ICBO | VCB = 50 V, IE = 0 | | | 0.1 | μΑ |
| Collector-emitter cutoff current (Base open) | ICEO | VCE = 50 V, IB = 0 | | | 0.5 | μΑ |
| 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 | 60 | | | - |
| 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 | 4.4 | | | V |
| | Vi(off) | VCE = 5 V, IC = 100 μA | | | 1.2 | V |
| Input resistance | R1 | | -30% | 47 | +30% | kΩ |
| Resistance ratio | R1/R2 | | 1.70 | 2.14 | 2.60 | - |

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

DRC3144W0L

Panasonic

Technical Data (reference)



0.1

0.0001

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0.1

85 °C

Output current lo (A)

0.01

0.001

Established: 2009-10-27

1.E-06

0

1

2

Input voltage VIN (V)

3

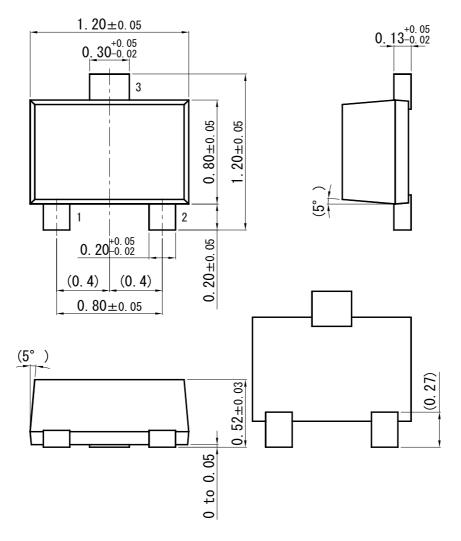
Transistors with Built-in Resistor

DRC3144W0L

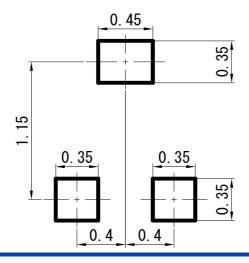
SSSMini3-F2-B

Panasonic

Unit: mm



■ Land Pattern (Reference) (Unit: mm)



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Established: 2009-10-27 Revised: 2014-03-26

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