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Revision. 3

Transistors with Built-in Resistor

DRC2123J0L

Panasonic

DRC2123J0L

Silicon NPN epitaxial planar type

For digital circuits
Complementary to DRA2123J

■ Features

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

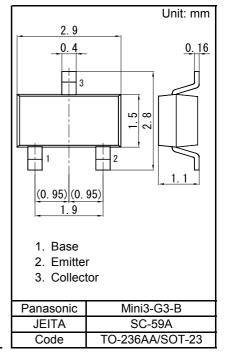
■ Marking Symbol: N4

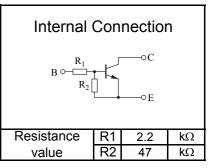
■ Packaging

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 | 200 | 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: 2009-10-29

: 2014-03-18

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 | 80 | | | - |
| 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 | 1.2 | | | V |
| | Vi(off) | VCE = 5 V, IC = 100 μA | | | 0.4 | V |
| Input resistance | R1 | | -30% | 2.2 | +30% | kΩ |
| Resistance ratio | R1/R2 | | 0.037 | 0.047 | 0.057 | • |

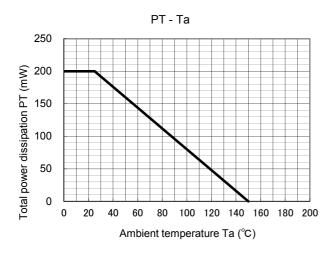
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 Measuring methods for transistors.

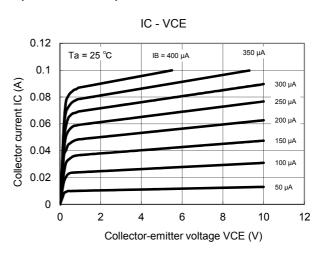
Transistors with Built-in Resistor

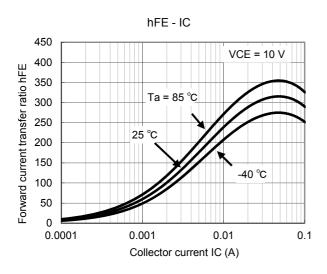
DRC2123J0L

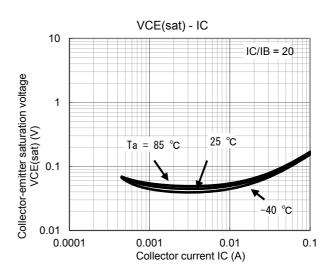
Panasonic

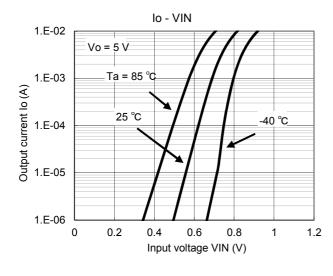
Technical Data (reference)

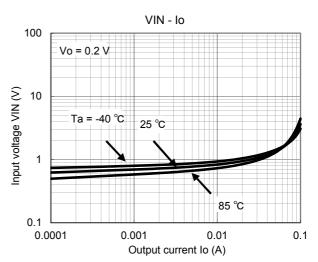












Established: 2009-10-29 Revised: 2014-03-18

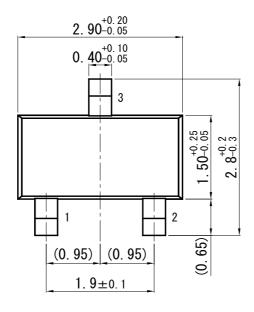
Transistors with Built-in Resistor

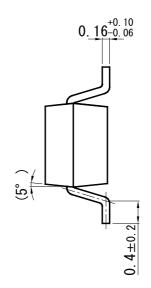
DRC2123J0L

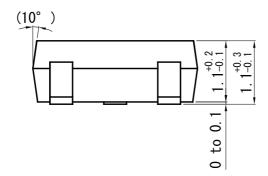
Mini3-G3-B

Panasonic

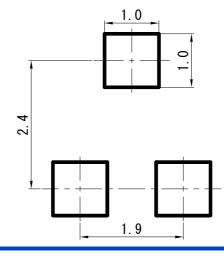
Unit: mm







■ Land Pattern (Reference) (Unit: mm)



Established: 2009-10-29 Revised: 2014-03-18

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