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Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

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Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China







Transistors with Built-in Resistor

DRA9115E0L

Panasonic

DRA9115E0L

Silicon PNP epitaxial planar type

For digital circuits
Complementary to DRC9115E
DRA5115E in SSMini3 type package

■ Features

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

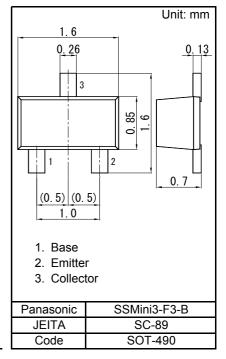
■ Marking Symbol: LN

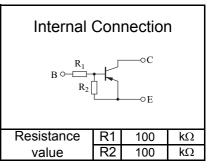
■ Packaging

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 | 125 | 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: 2009-10-16

: 2014-02-27

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 | | | -0.1 | 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 | -5.7 | | | V |
| | Vi(off) | VCE = -5 V, IC = -100 μA | | | -0.8 | V |
| Input resistance | R1 | | -30% | 100 | +30% | kΩ |
| Resistance ratio | R1/R2 | | 0.8 | 1.0 | 1.2 | - |

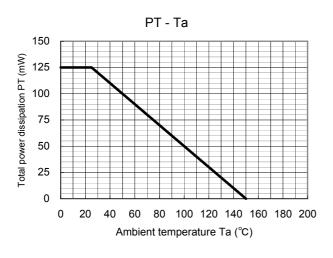
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 Measuring methods for transistors.

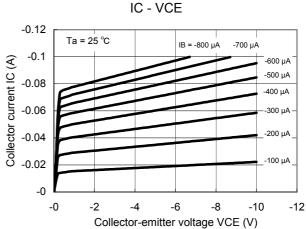
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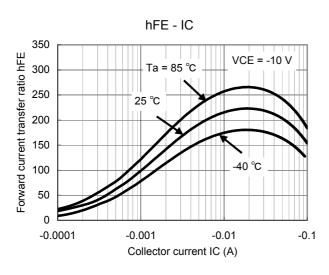
DRA9115E0L

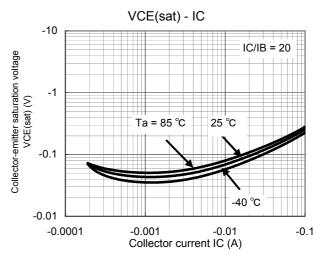
Panasonic

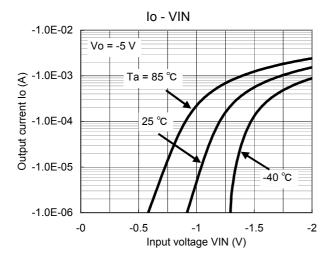
Technical Data (reference)

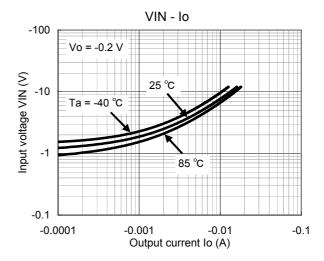












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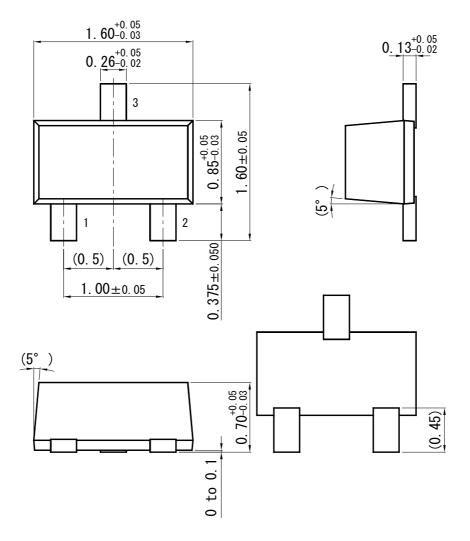
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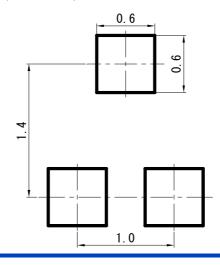
SSMini3-F3-B

Panasonic

Unit: mm



■ Land Pattern (Reference) (Unit: mm)



Page 3 of 3

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