

Transistors with Built-in Resistor DRA9143Z0L

## DRA9143Z0L Silicon PNP epitaxial planar type

For digital circuits Complementary to DRC9143Z DRA5143Z in SSMini3 type package

## Features

- High forward current transfer ratio hFE ٠
- Low collector-emitter saturation voltage Vce(sat)
- Halogen-free / RoHS compliant (EU RoHS / UL-94 V-0 / MSL:Level 1 compliant)
- Marking Symbol: L8

## Packaging

Collector current

Total power dissipation

Operating ambient temperature

Junction temperature

Storage temperature

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

Symbol

VCBO

VCEO

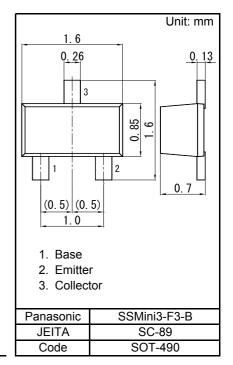
IC

PT

Tj

Topr

Tstg



| Rating      | Unit |                     |     |     |    |
|-------------|------|---------------------|-----|-----|----|
| -50         | V    |                     |     |     |    |
| -50         | V    | Internal Connection |     |     |    |
| -100        | mA   |                     |     |     |    |
| 125         | mW   | R <sub>1</sub>      | Г   | —•C |    |
| 150         | °C   | B ↔ — — – – – –     | rK. |     |    |
| -40 to +85  | °C   | R <sub>2</sub>      |     | . 5 |    |
| -55 to +150 | °C   |                     | •   | oE  |    |
|             |      |                     |     |     |    |
|             |      | Resistance          | R1  | 4.7 | kΩ |
|             |      | value               | R2  | 47  | kΩ |

| Absolute Maximum Ratings | Ta = 25 °C |
|--------------------------|------------|
|                          | 10 20 0    |

Parameter Collector-base voltage (Emitter open)

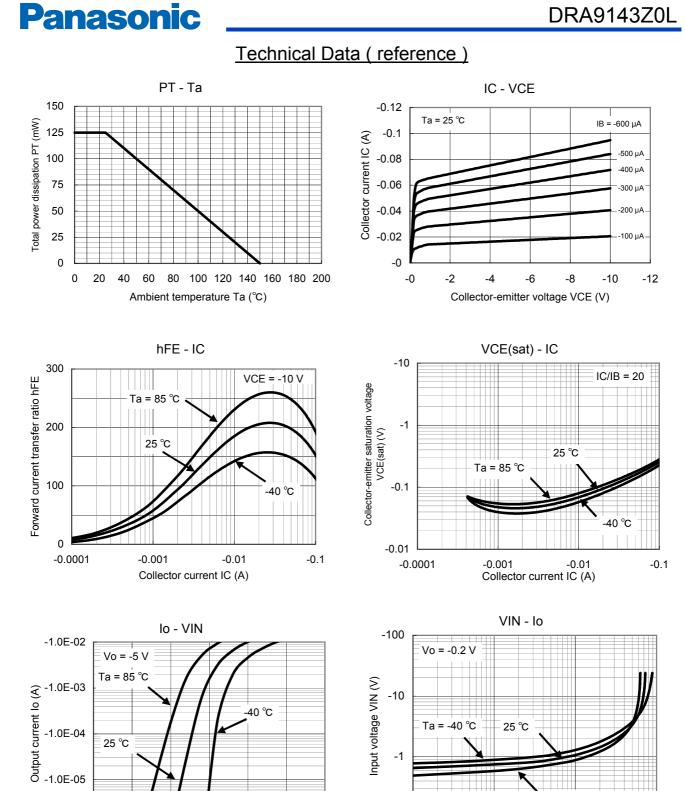
Collector-emitter voltage (Base open)

| Electrical Characteristics | Ta = 25 °C ± 3 °C |
|----------------------------|-------------------|
|----------------------------|-------------------|

| 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  | 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   | 80   |      | 400   | -    |  |  |
| Collector-emitter saturation voltage         | VCE(sat) | IC = -10 mA, IB = -0.5 mA |      |      | -0.25 | V    |  |  |
| Input voltago                                | Vi(on)   | VCE = -0.2 V, IC = -5 mA  | -1.3 |      |       | V    |  |  |
| Input voltage                                | Vi(off)  | VCE = -5 V, IC = -100 μA  |      |      | -0.4  | V    |  |  |
| Input resistance                             | R1       |                           | -30% | 4.7  | +30%  | kΩ   |  |  |
| Resistance ratio                             | R1/R2    |                           | 0.08 | 0.10 | 0.12  | -    |  |  |
|  |          |                           |      |      |       |      |  |  |

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

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-0.1

-1.5

-0.0001

Page 2 of 3

-0.1

85 °C

Output current lo (A)

-0.01

-0.001

Established : 2009-10-16 Revised : 2014-02-24

-1.0E-06

-0

-0.5

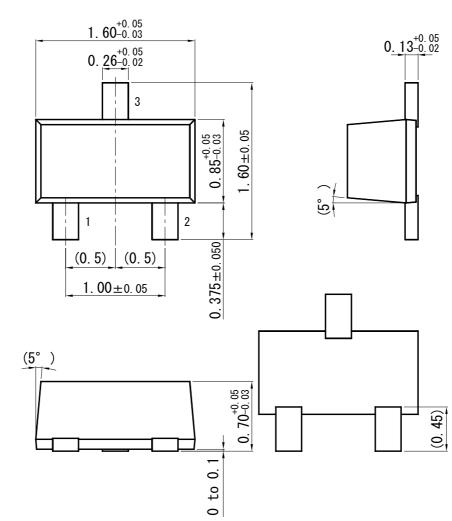
-1

Input voltage VIN (V)

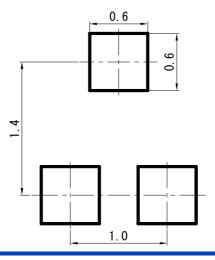


Transistors with Built-in Resistor DRA9143Z0L

Unit: mm



Land Pattern (Reference) (Unit: mm)



Page 3 of 3

SSMini3-F3-B

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