



# DRA2144V0L

Silicon PNP epitaxial planar type

For digital circuit

Complementary to DRC2144V

■ Features

- Low collector-emitter saturation voltage  $V_{ce(sat)}$
- Halogen-free / RoHS compliant  
 (EU RoHS / UL-94 V-0 / MSL:Level 1 compliant)

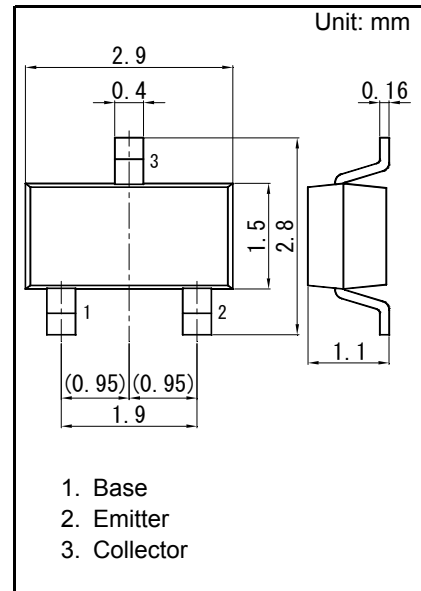
■ Marking Symbol: LJ

■ Packaging

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

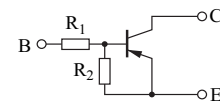
■ Absolute Maximum Ratings  $T_a = 25\text{ }^\circ\text{C}$

| 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   |



|           |                 |
|-----------|-----------------|
| Panasonic | Mini3-G3-B      |
| JEITA     | SC-59A          |
| Code      | TO-236AA/SOT-23 |

Internal Connection



|                  |    |    |    |
|------------------|----|----|----|
| Resistance value | R1 | 47 | kΩ |
|                  | R2 | 10 | kΩ |

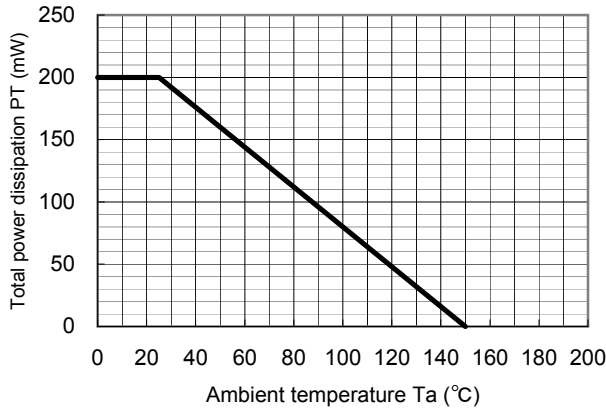
■ Electrical Characteristics  $T_a = 25\text{ }^\circ\text{C} \pm 3\text{ }^\circ\text{C}$

| 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        |      |     | -0.2  | mA   |
| Forward current transfer ratio               | hFE      | VCE = -10 V, IC = -5 mA   | 30   |     |       | -    |
| 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  | -6.3 |     |       | V    |
|  | Vi(off)  | VCE = -5 V, IC = -100 μA  |      |     | -1.9  | V    |
| Input resistance                             | R1       |                           | -30% | 47  | +30%  | kΩ   |
| Resistance ratio                             | R1/R2    |                           | 3.7  | 4.7 | 5.7   | -    |

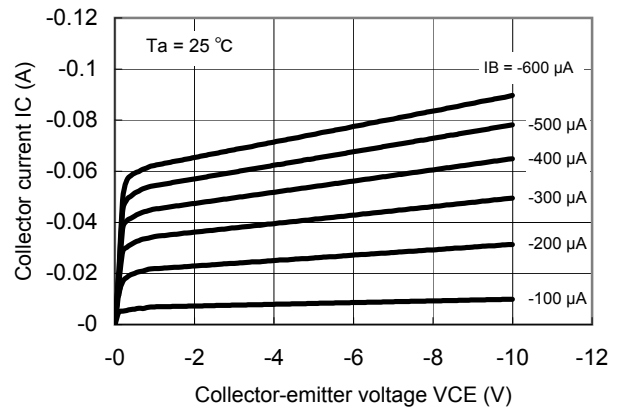
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 Measuring methods for transistors.

Technical Data ( reference )

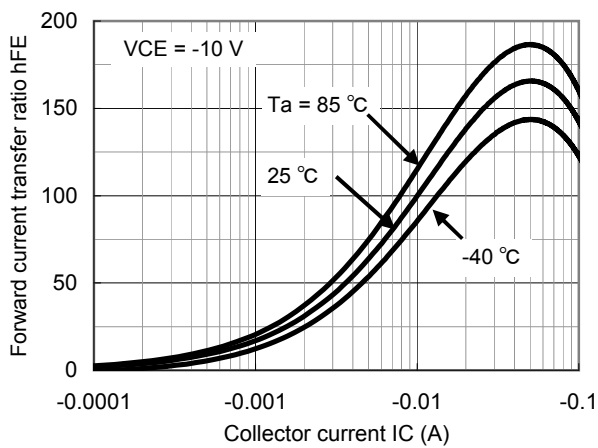
PT - Ta



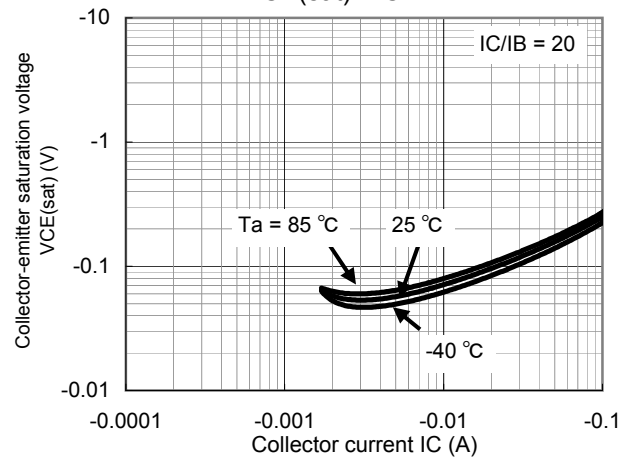
IC - VCE



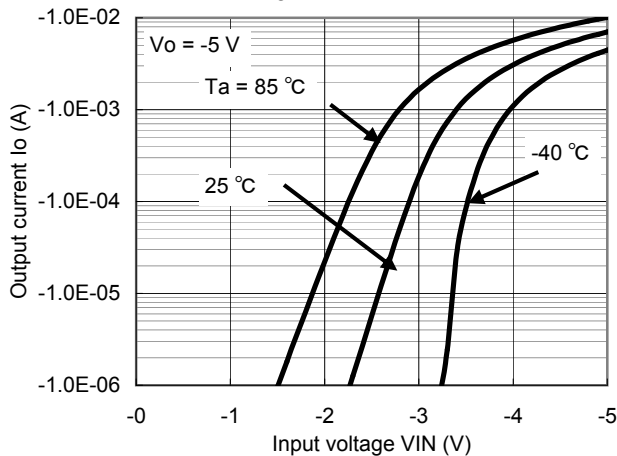
hFE - IC



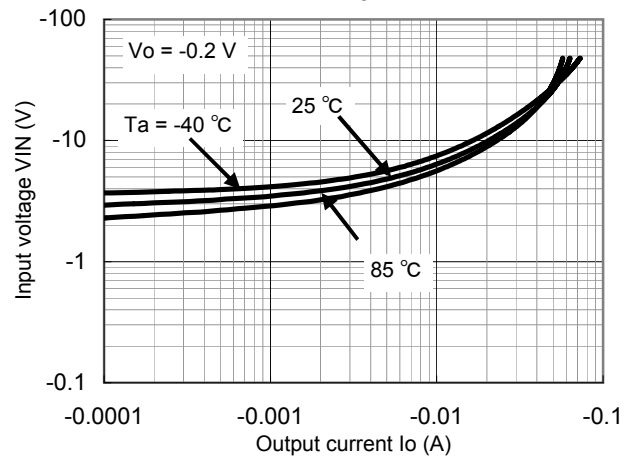
VCE(sat) - IC



Io - VIN



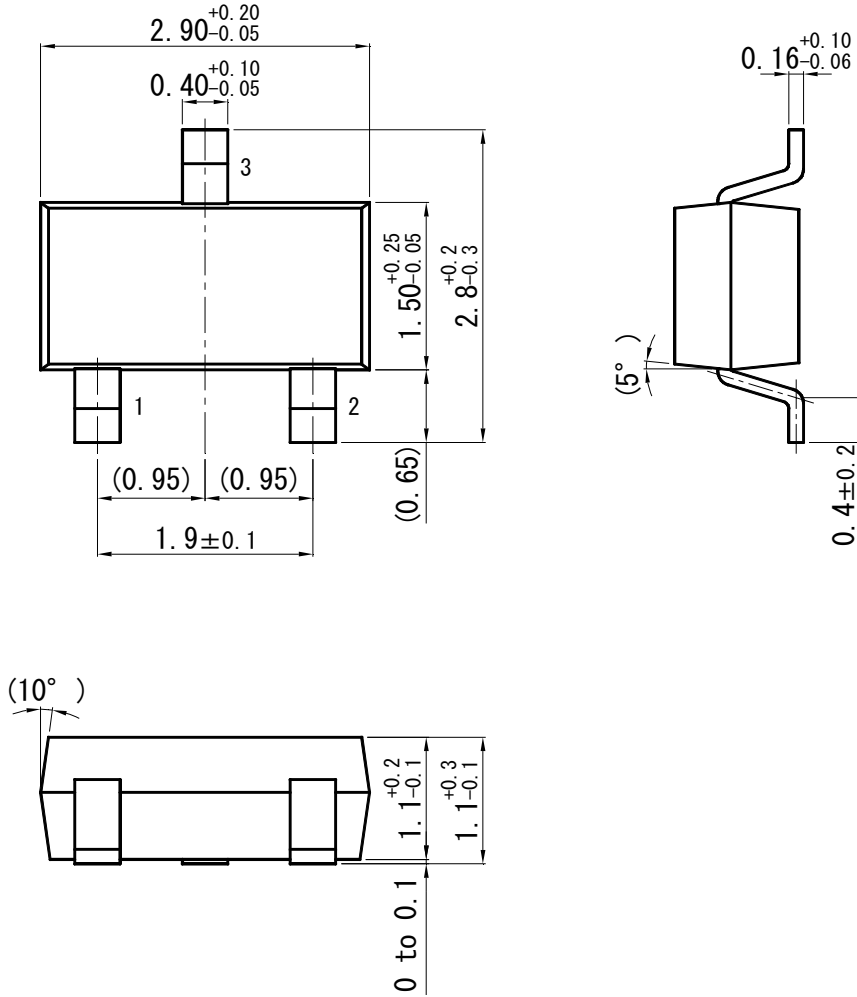
VIN - Io



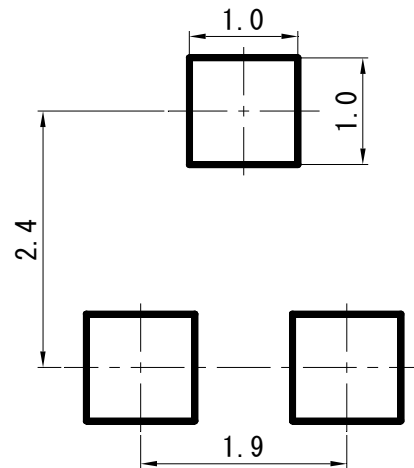


Mini3-G3-B

Unit: mm



■ Land Pattern (Reference) (Unit: mm)



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