



# DRA2124X0L

## Silicon PNP epitaxial planar type

For digital circuit  
 Complementary to DRC2124X

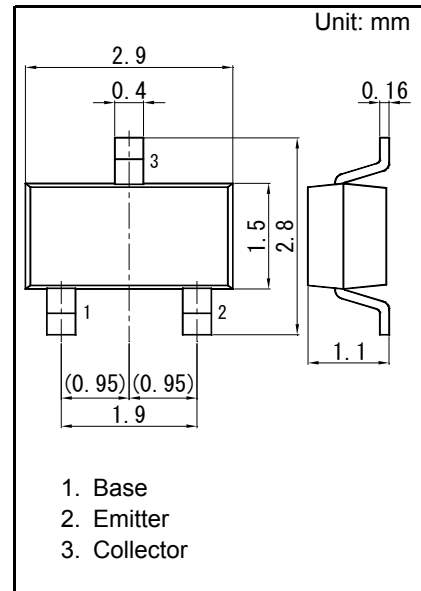
### ■ Features

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

### ■ Marking Symbol: LF

### ■ Packaging

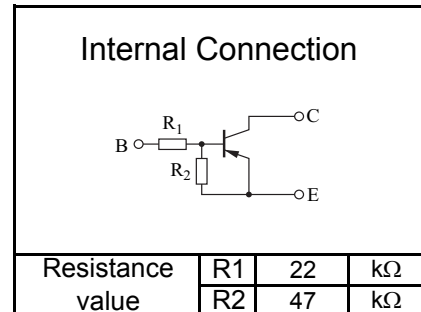
Embossed type (Thermo-compression sealing) : 3 000 pcs / reel (standard)



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

### ■ 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   |



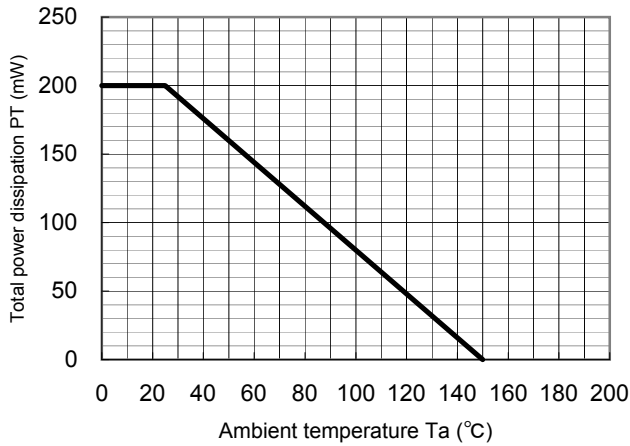
### ■ Electrical Characteristics Ta = 25 °C ± 3 °C

| 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   | 80   |      | 400   | -    |
| 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  | -2.1 |      |       | V    |
|  | Vi(off)  | VCE = -5 V, IC = -100 μA  |      |      | -0.6  | V    |
| Input resistance                             | R1       |                           | -30% | 22   | +30%  | kΩ   |
| Resistance ratio                             | R1/R2    |                           | 0.37 | 0.47 | 0.57  | -    |

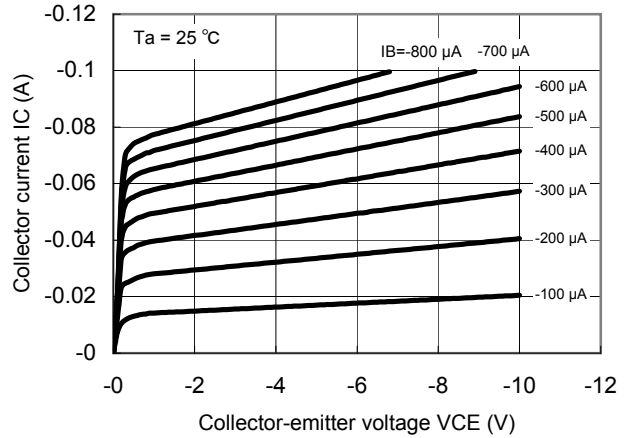
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 Measuring methods for transistors.

Technical Data ( reference )

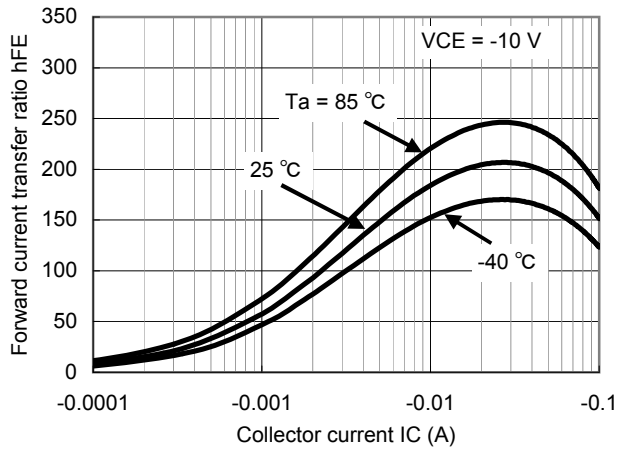
PT - Ta



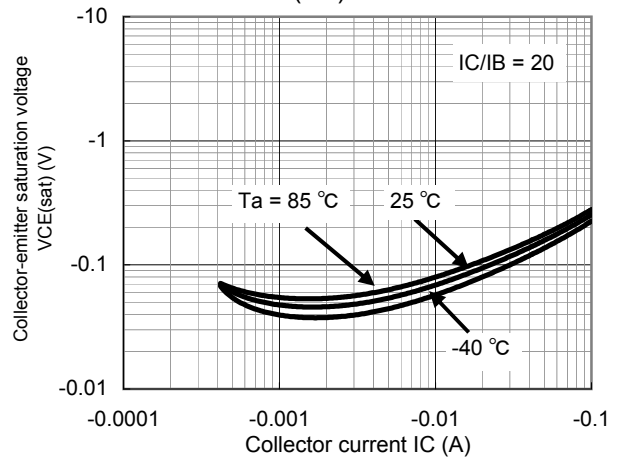
IC - VCE



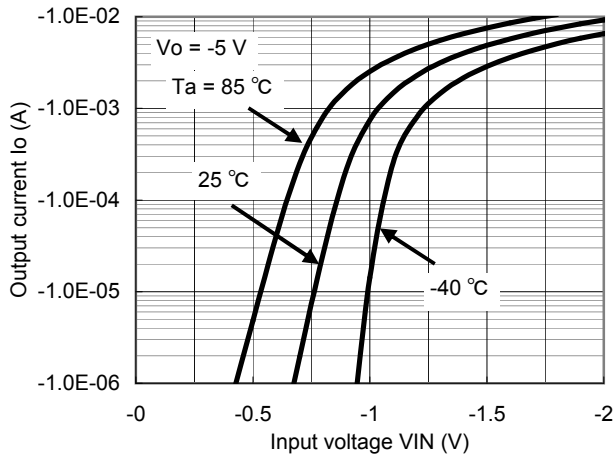
hFE - IC



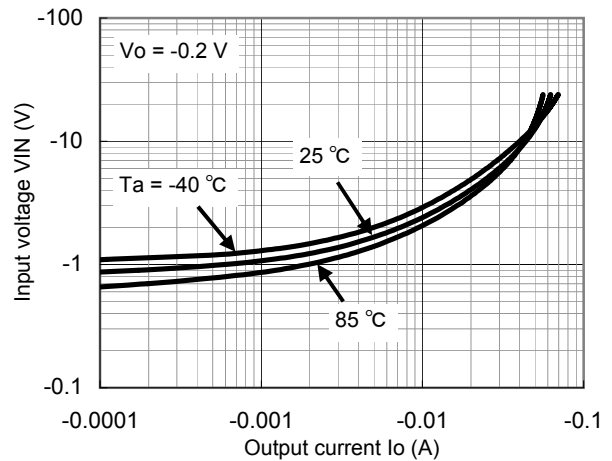
VCE(sat) - IC



Io - VIN



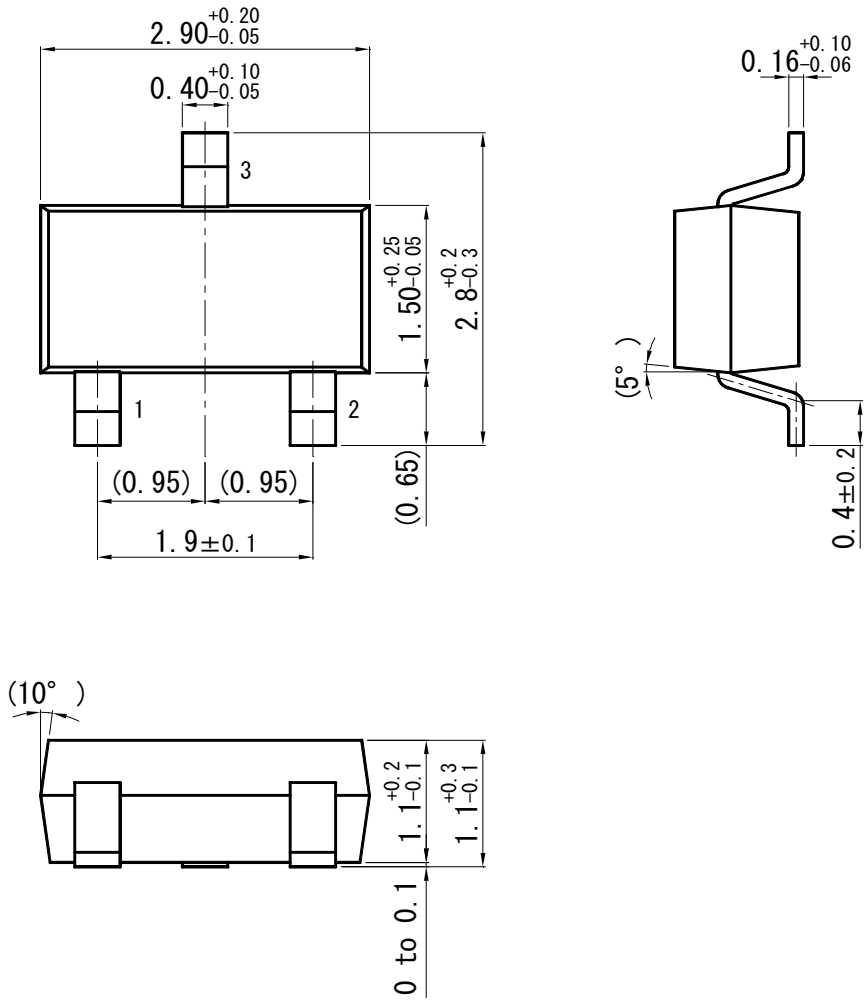
VIN - Io



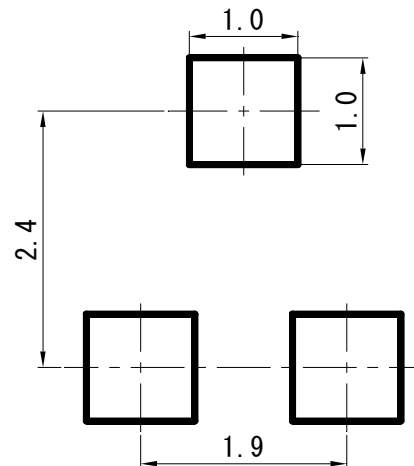


### Mini3-G3-B

Unit: mm



#### ■ Land Pattern (Reference) (Unit: mm)



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