



DRA9113Z0L

Silicon PNP epitaxial planar type

For digital circuits

Complementary to DRC9113Z

DRA5113Z in SSMini3 type package

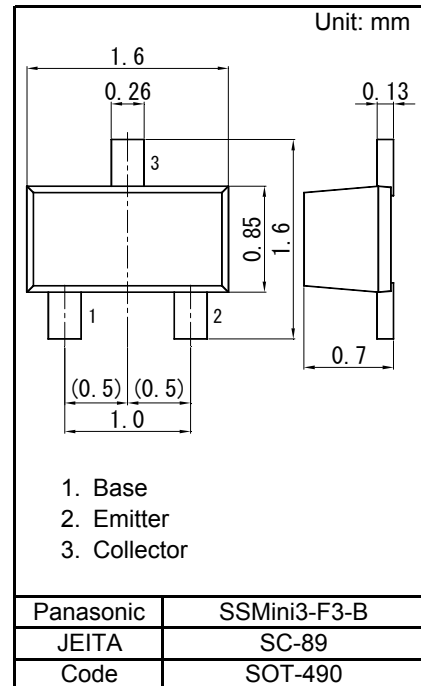
■ Features

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

■ Marking Symbol: L1

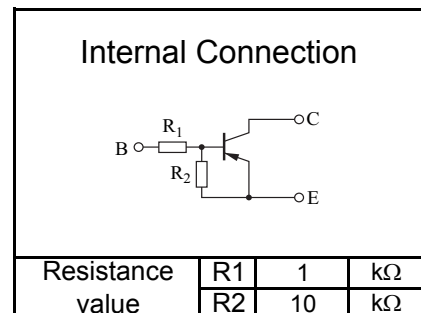
■ Packaging

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 | 125 | mW |
| Junction temperature | Tj | 150 | °C |
| Operating ambient temperature | Topr | -40 to +85 | °C |
| Storage temperature | Tstg | -55 to +150 | °C |



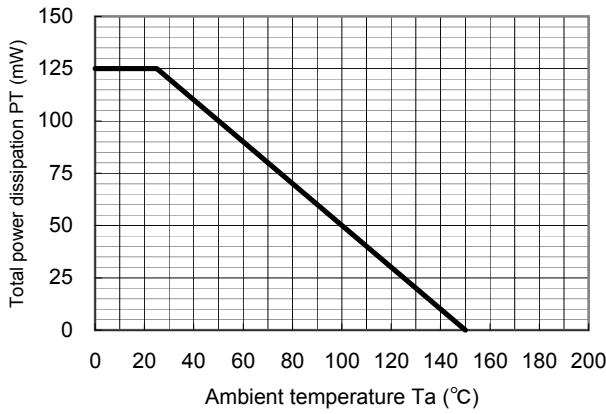
■ Electrical Characteristics $T_a = 25\text{ }^\circ\text{C} \pm 3\text{ }^\circ\text{C}$

| 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 | | | -1.5 | 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 | -1.0 | | | V |
| | Vi(off) | VCE = -5 V, IC = -100 μA | | | -0.4 | V |
| Input resistance | R1 | | -30% | 1 | +30% | kΩ |
| Resistance ratio | R1/R2 | | 0.08 | 0.10 | 0.12 | - |

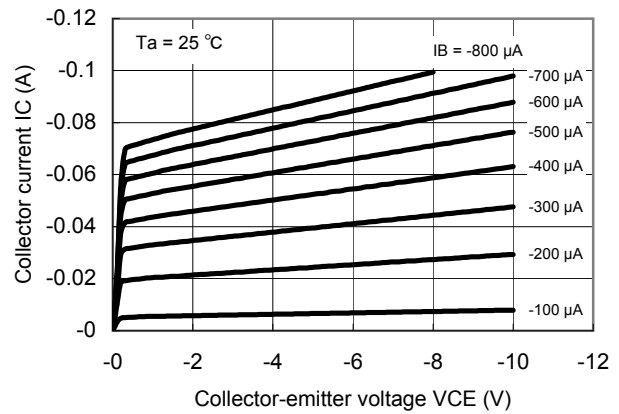
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 Measuring methods for transistors.

Technical Data (reference)

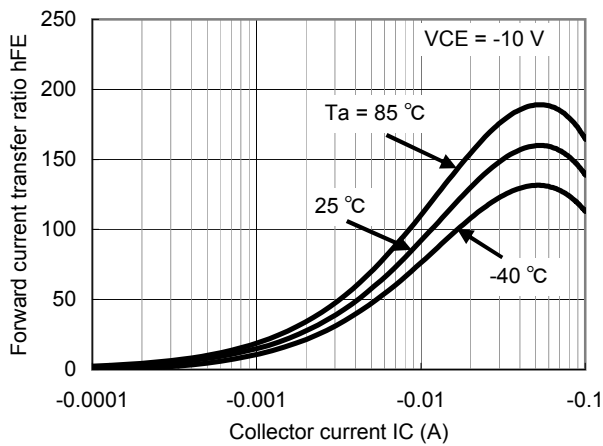
PT - Ta



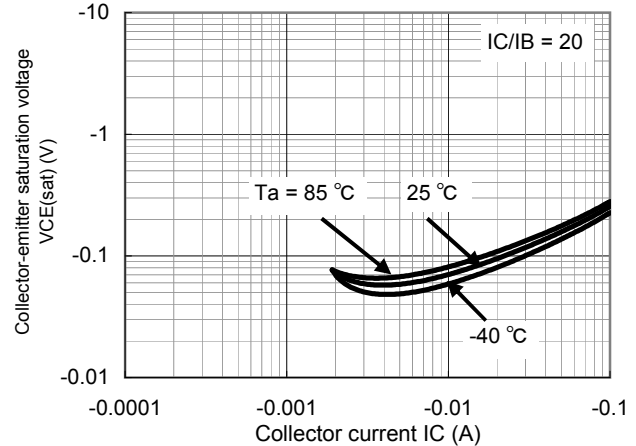
IC - VCE



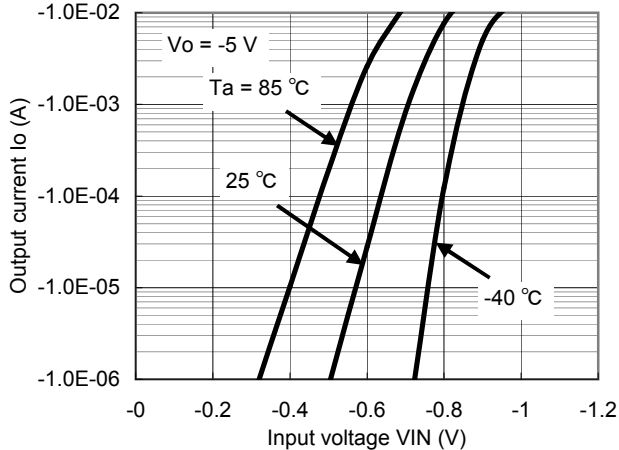
hFE - IC



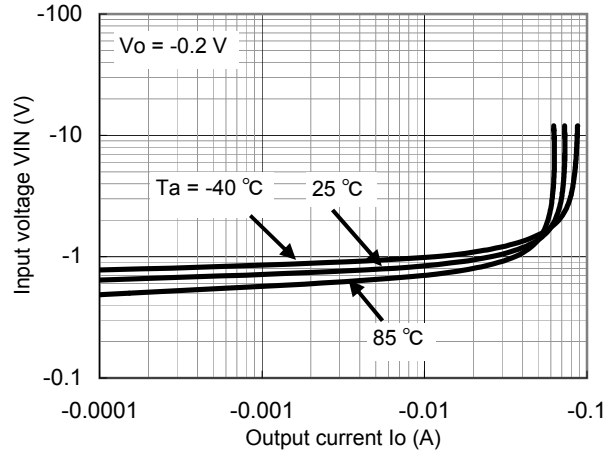
VCE(sat) - IC



Io - VIN



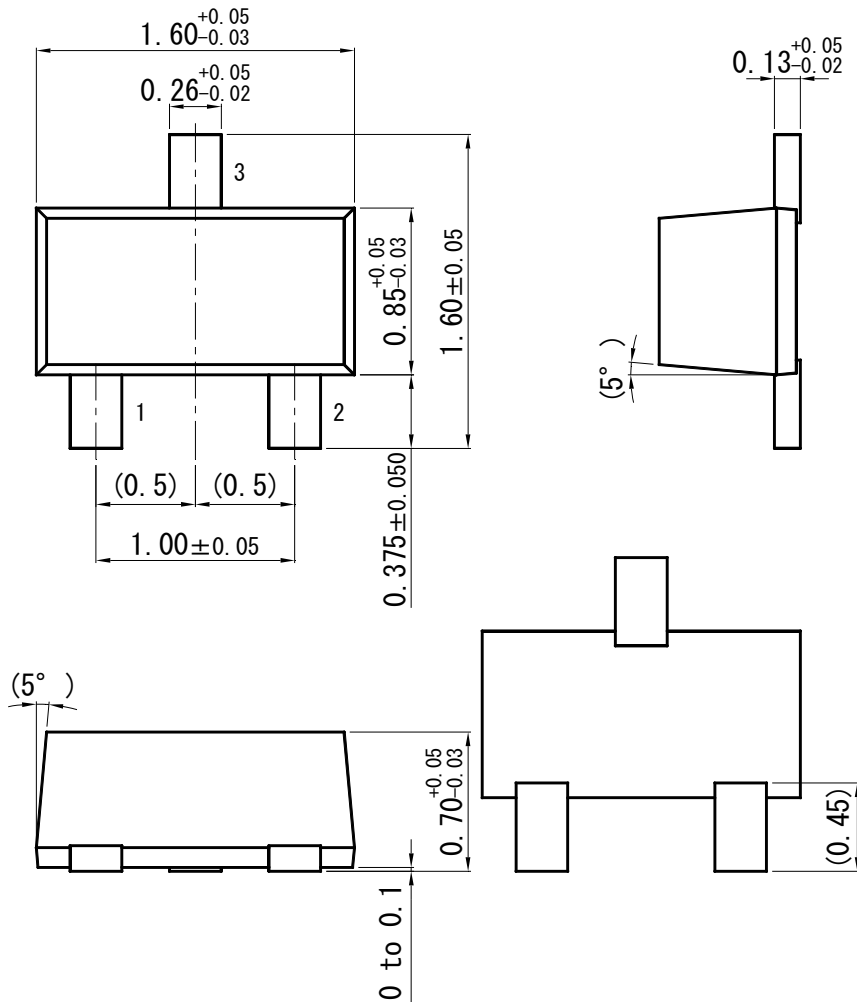
VIN - Io



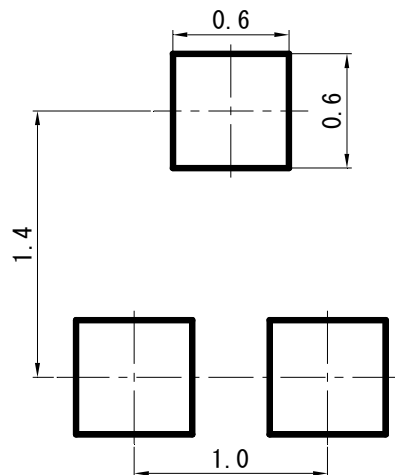


SSMini3-F3-B

Unit: mm



■ Land Pattern (Reference) (Unit: mm)



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