DRC2114E

Silicon NPN epitaxial planar type

For digital circuits
Complementary to DRA2114E

■ Features

- ullet Low collector-emitter saturation voltage $V_{CE(sat)}$
- Contributes to miniaturization of sets, reduction of component count.
- Eco-friendly Halogen-free package

Packaging

Embossed type (Thermo-compression sealing): 3000 pcs / reel (standard)

■ Absolute Maximum Ratings $T_a = 25$ °C

| Parameter | Symbol | Rating | Unit |
|---------------------------------------|------------------|-------------|------|
| Collector-base voltage (Emitter open) | V_{CBO} | 50 | V |
| Collector-emitter voltage (Base open) | V _{CEO} | 50 | V |
| Collector current | I_{C} | 100 | mA |
| Total power dissipation | P _T | 200 | mW |
| Junction temperature | T_j | 150 | °C |
| Storage temperature | T _{stg} | -55 to +150 | °C |

■ Package

• Code

Mini3-G3-B

Pin Name

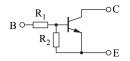
1: Base

2: Emitter

3: Collector

■ Marking Symbol: NB

■ Internal Connection



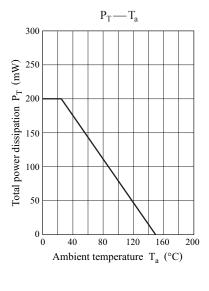
| Resistance value | R_1 | 10 | kΩ |
|------------------|----------------|----|----|
| | R ₂ | 10 | kΩ |

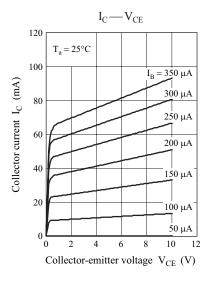
■ Electrical Characteristics $T_a = 25$ °C±3°C

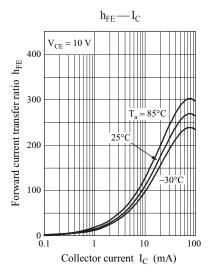
| Parameter | Symbol | Conditions | Min | Тур | Max | Unit |
|--|----------------------|--|------|-----|------|------|
| Collector-base voltage (Emitter open) | V _{CBO} | $I_C = 10 \mu A, I_E = 0$ | 50 | | | V |
| Collector-emitter voltage (Base open) | V _{CEO} | $I_{\rm C} = 2 \text{ mA}, I_{\rm B} = 0$ | 50 | | | V |
| Collector-base cutoff current (Emitter open) | I_{CBO} | $V_{\rm CB} = 50 \text{ V}, I_{\rm E} = 0$ | | | 0.1 | μΑ |
| Collector-emitter cutoff current (Base open) | I _{CEO} | $V_{CE} = 50 \text{ V}, I_{B} = 0$ | | | 0.5 | μΑ |
| Emitter-base cutoff current (Collector open) | I _{EBO} | $V_{EB} = 6 \text{ V}, I_C = 0$ | | | 0.5 | mA |
| Forward current transfer ratio | h _{FE} | $V_{CE} = 10 \text{ V}, I_{C} = 5 \text{ mA}$ | 35 | | | _ |
| Collector-emitter saturation voltage | V _{CE(sat)} | $I_C = 10 \text{ mA}, I_B = 0.5 \text{ mA}$ | | | 0.25 | V |
| Input voltage (ON) | V _{I(on)} | $V_{CE} = 0.2 \text{ V}, I_{C} = 5 \text{ mA}$ | 2.1 | | | V |
| Input voltage (OFF) | V _{I(off)} | $V_{CE} = 5 \text{ V}, I_{C} = 100 \mu\text{A}$ | | | 0.8 | V |
| Input resistance | R_1 | | -30% | 10 | +30% | kΩ |
| Resistance ratio | R_1/R_2 | | 0.8 | 1.0 | 1.2 | _ |

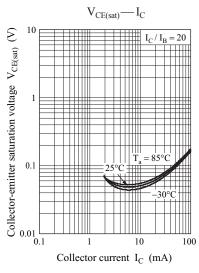
Note) Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

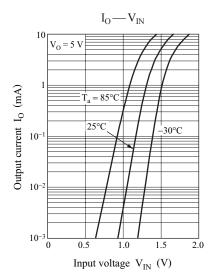
DRC2114E Panasonic

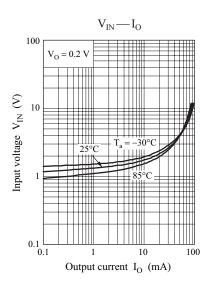






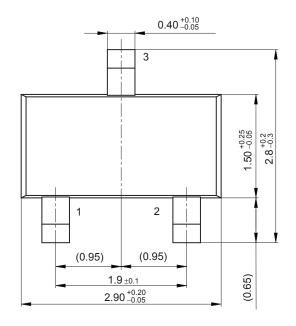


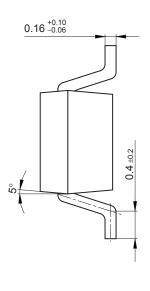


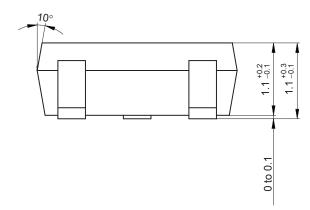


2 Ver. CED

Mini3-G3-B Unit: mm







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