

# DRA4143Z

## Silicon PNP epitaxial planar type

For digital circuits

Complementary to DRC4143Z

DRA2143Z in NS through hole type package

### ■ Features

- High forward current transfer ratio  $h_{FE}$
- Low collector-emitter saturation voltage  $V_{CE(sat)}$
- Contributes to miniaturization of sets, mount area reduction
- Eco-friendly Halogen-free package

### ■ Packaging

DRA4143Z0A Radial type: 5000 pcs / carton

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

| 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               | $P_T$     | 300         | mW               |
| Junction temperature                  | $T_j$     | 150         | $^\circ\text{C}$ |
| Storage temperature                   | $T_{stg}$ | -55 to +150 | $^\circ\text{C}$ |

### ■ Package

- Code

NS-B2-B-B

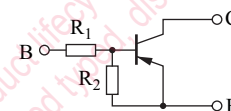
Package dimension clicks here.→

- Pin Name

- 1: Emitter
- 2: Collector
- 3: Base

### ■ Marking Symbol: L8

### ■ Internal Connection



| Resistance value | $R_1$ | 4.7 | $\text{k}\Omega$ |
|------------------|-------|-----|------------------|
|                  | $R_2$ | 47  | $\text{k}\Omega$ |

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

| Parameter                                    | Symbol        | Conditions                                     | Min  | Typ  | Max   | Unit             |
|--|---------------|--|------|------|-------|------------------|
| Collector-base voltage (Emitter open)        | $V_{CBO}$     | $I_C = -10 \mu\text{A}, I_E = 0$               | -50  |      |       | V                |
| Collector-emitter voltage (Base open)        | $V_{CEO}$     | $I_C = -2 \text{mA}, I_B = 0$                  | -50  |      |       | V                |
| Collector-base cutoff current (Emitter open) | $I_{CBO}$     | $V_{CB} = -50 \text{V}, I_E = 0$               |      |      | -0.1  | $\mu\text{A}$    |
| Collector-emitter cutoff current (Base open) | $I_{CEO}$     | $V_{CE} = -50 \text{V}, I_B = 0$               |      |      | -0.5  | $\mu\text{A}$    |
| Emitter-base cutoff current (Collector open) | $I_{EBO}$     | $V_{EB} = -6 \text{V}, I_C = 0$                |      |      | -0.2  | mA               |
| Forward current transfer ratio               | $h_{FE}$      | $V_{CE} = -10 \text{V}, I_C = -5 \text{mA}$    | 80   |      | 400   | —                |
| Collector-emitter saturation voltage         | $V_{CE(sat)}$ | $I_C = -10 \text{mA}, I_B = -0.5 \text{mA}$    |      |      | -0.25 | V                |
| Input voltage (ON)                           | $V_{I(on)}$   | $V_{CE} = -0.2 \text{V}, I_C = -5 \text{mA}$   | -1.3 |      |       | V                |
| Input voltage (OFF)                          | $V_{I(off)}$  | $V_{CE} = -5 \text{V}, I_C = -100 \mu\text{A}$ |      |      | -0.4  | V                |
| Input resistance                             | $R_1$         |  | -30% | 4.7  | +30%  | $\text{k}\Omega$ |
| Resistance ratio                             | $R_1 / R_2$   |  | 0.08 | 0.10 | 0.12  | —                |

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

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