

# DMA50601

## Silicon PNP epitaxial planar type

For general amplification

DMA20601 in SMini6 type package

### ■ Features

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

### ■ Basic Part Number

Dual DSA2001 (Individual)

### ■ Packaging

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

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

| Parameter                             | Symbol    | Rating      | Unit             |
|---------------------------------------|-----------|-------------|------------------|
| Collector-base voltage (Emitter open) | $V_{CBO}$ | -60         | V                |
| Collector-emitter voltage (Base open) | $V_{CEO}$ | -50         | V                |
| Emitter-base voltage (Collector open) | $V_{EBO}$ | -7          | V                |
| Collector current                     | $I_C$     | -100        | mA               |
| Peak collector current                | $I_{CP}$  | -200        | mA               |
| Total power dissipation               | $P_T$     | 300         | mW               |
| Junction temperature                  | $T_j$     | 150         | $^\circ\text{C}$ |
| Storage temperature                   | $T_{stg}$ | -55 to +150 | $^\circ\text{C}$ |

### ■ 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)                               | $V_{CBO}$                 | $I_C = -10 \mu\text{A}, I_E = 0$                   | -60  |      |      | V             |
| Collector-emitter voltage (Base open)                               | $V_{CEO}$                 | $I_C = -2 \text{mA}, I_B = 0$                      | -50  |      |      | V             |
| Emitter-base voltage (Collector open)                               | $V_{EBO}$                 | $I_E = -10 \mu\text{A}, I_C = 0$                   | -7   |      |      | V             |
| Collector-base cutoff current (Emitter open)                        | $I_{CBO}$                 | $V_{CB} = -20 \text{V}, I_E = 0$                   |      |      | -0.1 | $\mu\text{A}$ |
| Collector-emitter cutoff current (Base open)                        | $I_{CEO}$                 | $V_{CE} = -10 \text{V}, I_B = 0$                   |      |      | -100 | $\mu\text{A}$ |
| Forward current transfer ratio                                      | $h_{FE}$                  | $V_{CE} = -10 \text{V}, I_C = -2 \text{mA}$        | 210  |      | 460  | —             |
| $h_{FE}$ ratio *  | $h_{FE}$<br>(Small/Large) | $V_{CE} = -10 \text{V}, I_C = -2 \text{mA}$        | 0.50 | 0.99 |      | —             |
| Collector-emitter saturation voltage                                | $V_{CE(sat)}$             | $I_C = -100 \text{mA}, I_B = -10 \text{mA}$        |      | -0.2 | -0.5 | V             |
| Transition frequency  | $f_T$                     | $V_{CE} = -10 \text{V}, I_C = -2 \text{mA}$        |      | 150  |      | MHz           |
| Collector output capacitance<br>(Common base, input open circuited) | $C_{ob}$                  | $V_{CB} = -10 \text{V}, I_E = 0, f = 1 \text{MHz}$ |      | 2    |      | pF            |

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

2. \*: Ratio between 2 elements

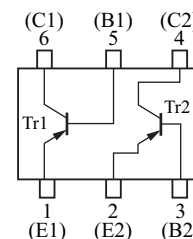
### ■ Package

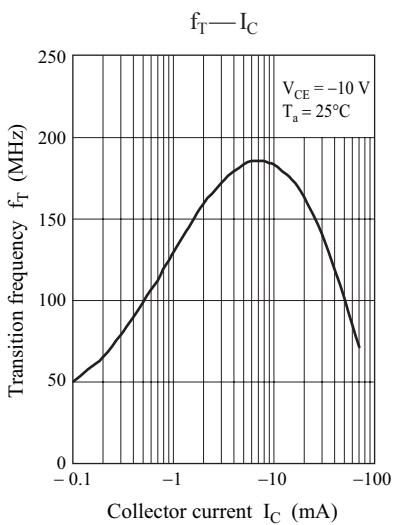
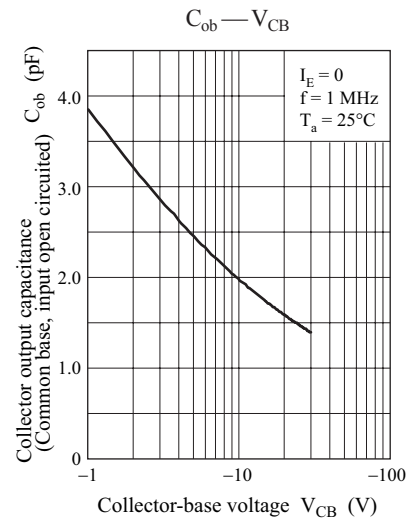
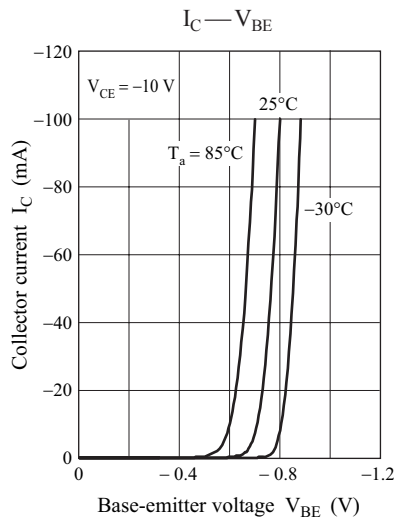
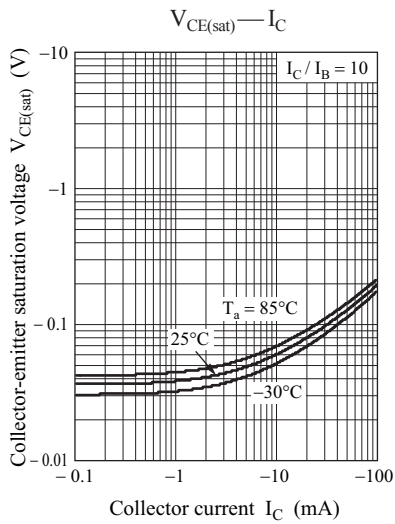
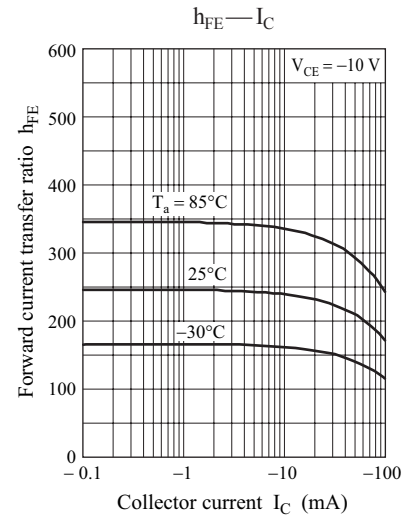
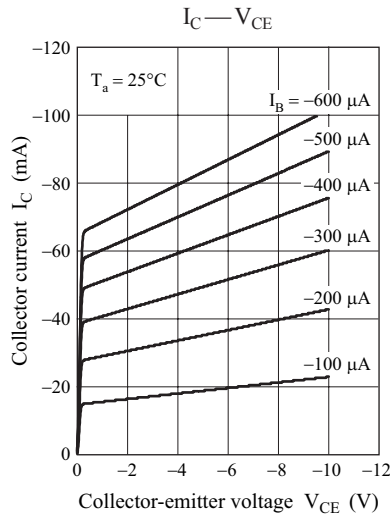
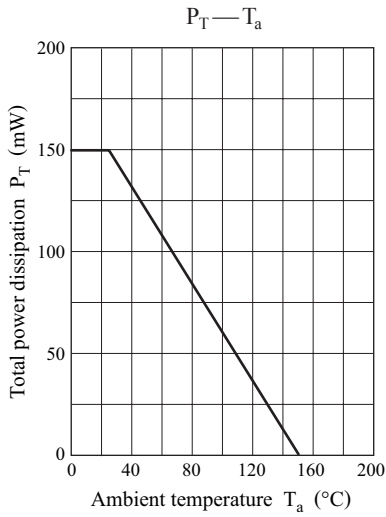
- Code  
SMini6-F3-B
- Pin Name
 

|                  |                    |
|------------------|--------------------|
| 1: Emitter (Tr1) | 4: Collector (Tr2) |
| 2: Emitter (Tr2) | 5: Base (Tr1)      |
| 3: Base (Tr2)    | 6: Collector (Tr1) |

### ■ Marking Symbol: B2

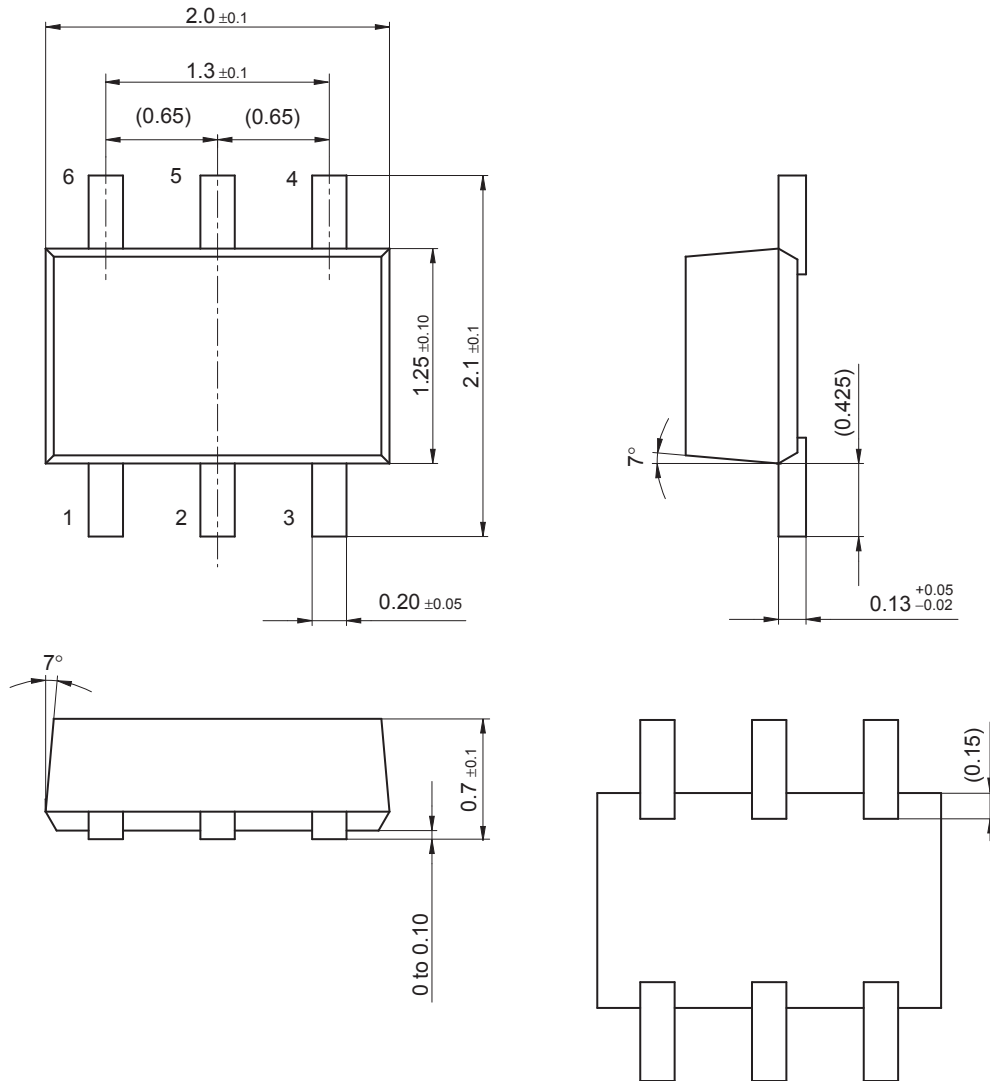
### ■ Internal Connection





SMini6-F3-B

Unit: mm



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