

# DMC20201

## Silicon NPN epitaxial planar type

For general amplification

### ■ Features

- Contributes to miniaturization of sets, reduction of component count.
- Eco-friendly Halogen-free package

### ■ Basic Part Number

Dual DSC2001 (Common base)

### ■ 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)	$V_{CB0}$	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	$^\circ\text{C}$

### ■ Package

#### • Code

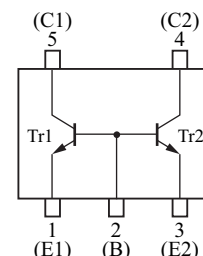
Mini5-G3-B

#### • Pin Name

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

### ■ Marking Symbol: A6

### ■ Internal Connection

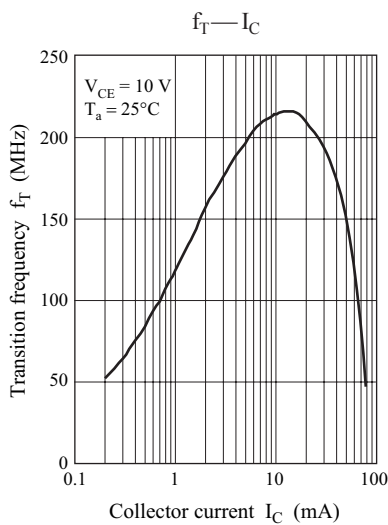
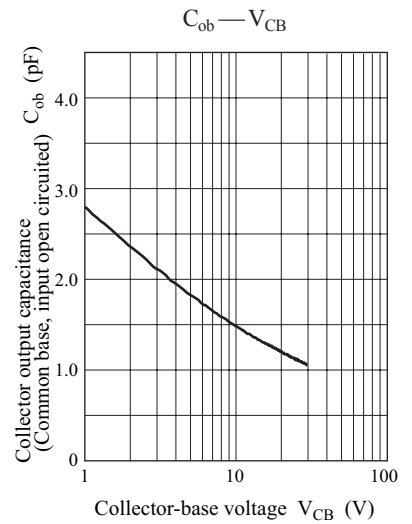
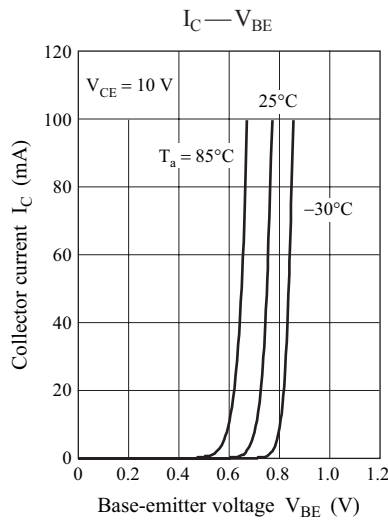
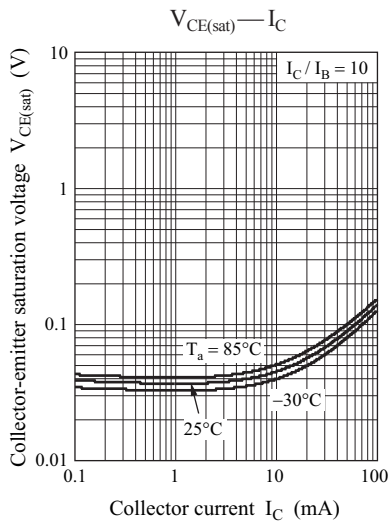
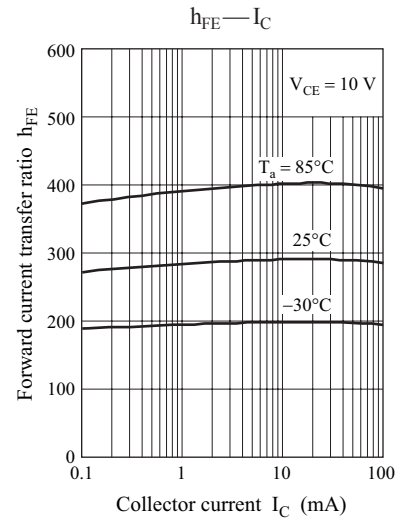
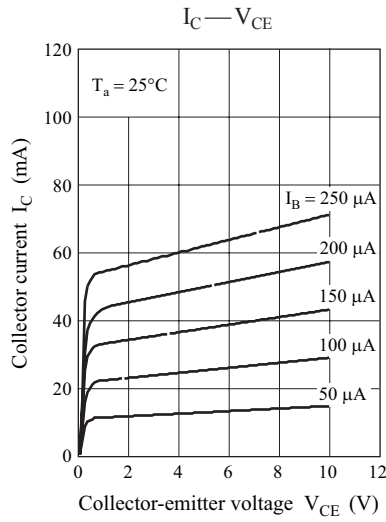
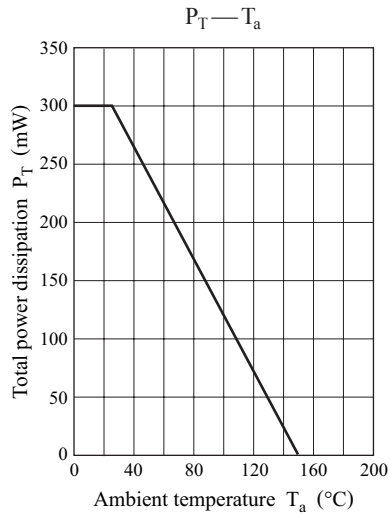


### ■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-base voltage (Emitter open)	$V_{CB0}$	$I_C = 10 \mu\text{A}, I_E = 0$	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 *	$h_{FE}$ (Small/Large)	$V_{CE} = 10 \text{ V}, I_C = 2 \text{ mA}$	0.50	0.99		—
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 100 \text{ mA}, I_B = 10 \text{ mA}$		0.13	0.3	V
Transition frequency	$f_T$	$V_{CE} = 10 \text{ V}, I_C = 2 \text{ mA}$		150		MHz
Collector output capacitance (Common base, input open circuited)	$C_{ob}$	$V_{CB} = 10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$		1.5		pF

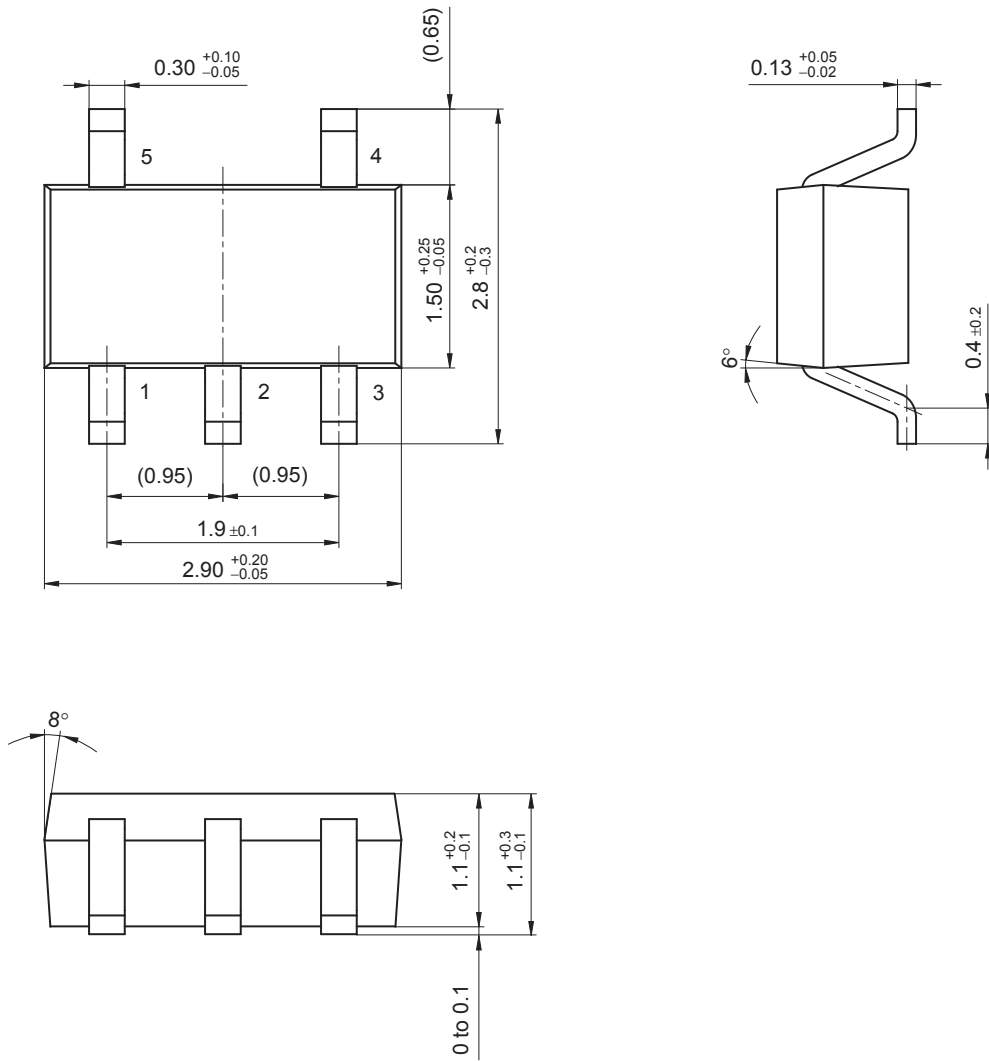
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

2. \*: Ratio between 2 elements



Mini5-G3-B

Unit: mm



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