

# DMC20402

## Silicon NPN epitaxial planar type

For general amplification

### ■ Features

- High forward current transfer ratio  $h_{FE}$  with excellent linearity
- Contributes to miniaturization of sets, reduction of component count.
- Eco-friendly Halogen-free package

### ■ Basic Part Number

Dual DSC2002 (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)	$V_{EBO}$	5	V
Collector current	$I_C$	500	mA
Peak collector current	$I_{CP}$	1	A
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)	$V_{EBO}$	$I_E = 10 \mu\text{A}$ , $I_C = 0$	5			V
Collector-base cutoff current (Emitter open)	$I_{CBO}$	$V_{CB} = 20 \text{ V}$ , $I_E = 0$			0.1	$\mu\text{A}$
Forward current transfer ratio *	$h_{FE1}$	$V_{CE} = 10 \text{ V}$ , $I_C = 150 \text{ mA}$	120		340	—
	$h_{FE2}$	$V_{CE} = 10 \text{ V}$ , $I_C = 500 \text{ mA}$	40			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 300 \text{ mA}$ , $I_B = 30 \text{ mA}$		0.1	0.6	V
Transition frequency	$f_T$	$V_{CE} = 10 \text{ V}$ , $I_C = -50 \text{ mA}$		160		MHz
Collector output capacitance (Common base, input open circuited)	$C_{ob}$	$V_{CB} = 10 \text{ V}$ , $I_E = 0$ , $f = 1 \text{ MHz}$		4.8	15	pF

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

2. \*: Pulse measurement

### ■ Package

#### • Code

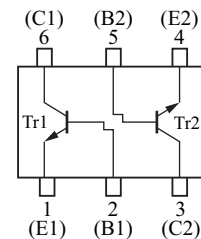
Mini6-G4-B

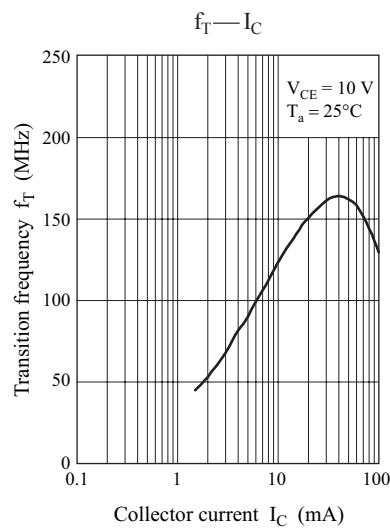
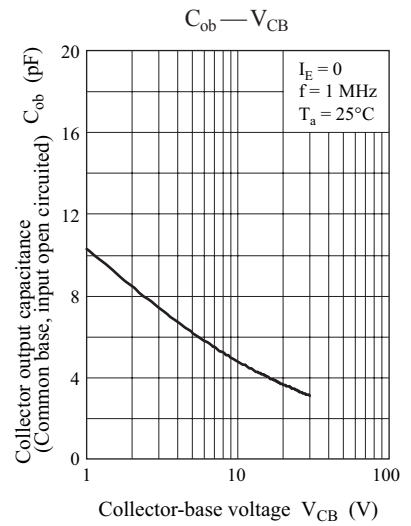
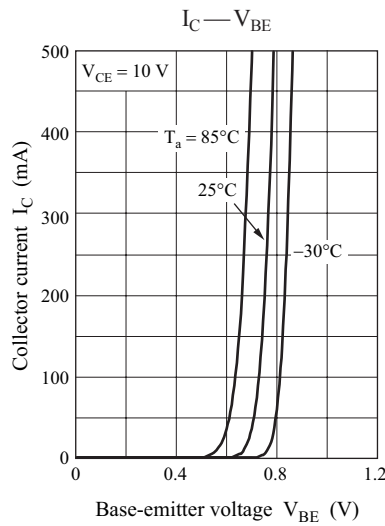
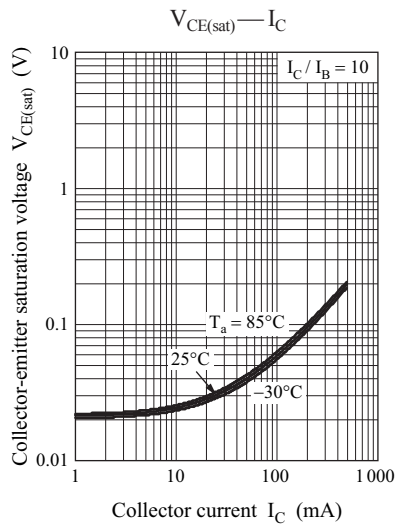
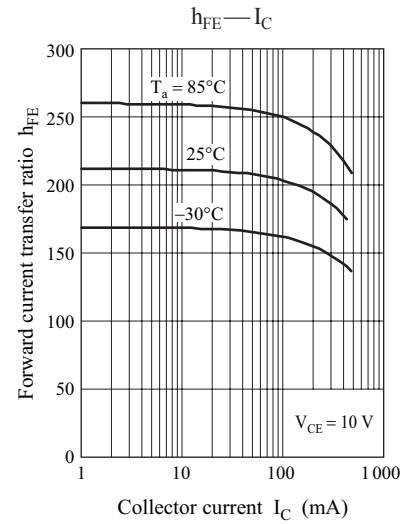
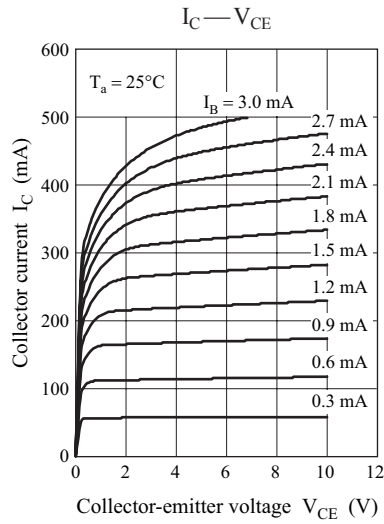
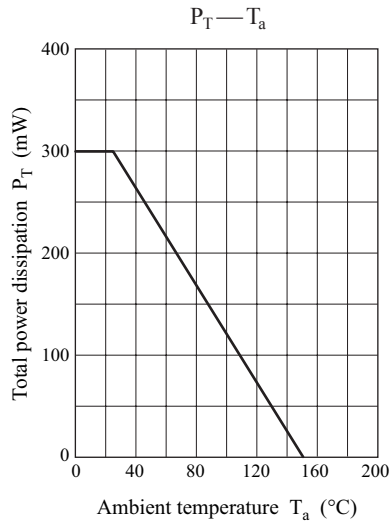
#### • Pin Name

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

### ■ Marking Symbol: B6

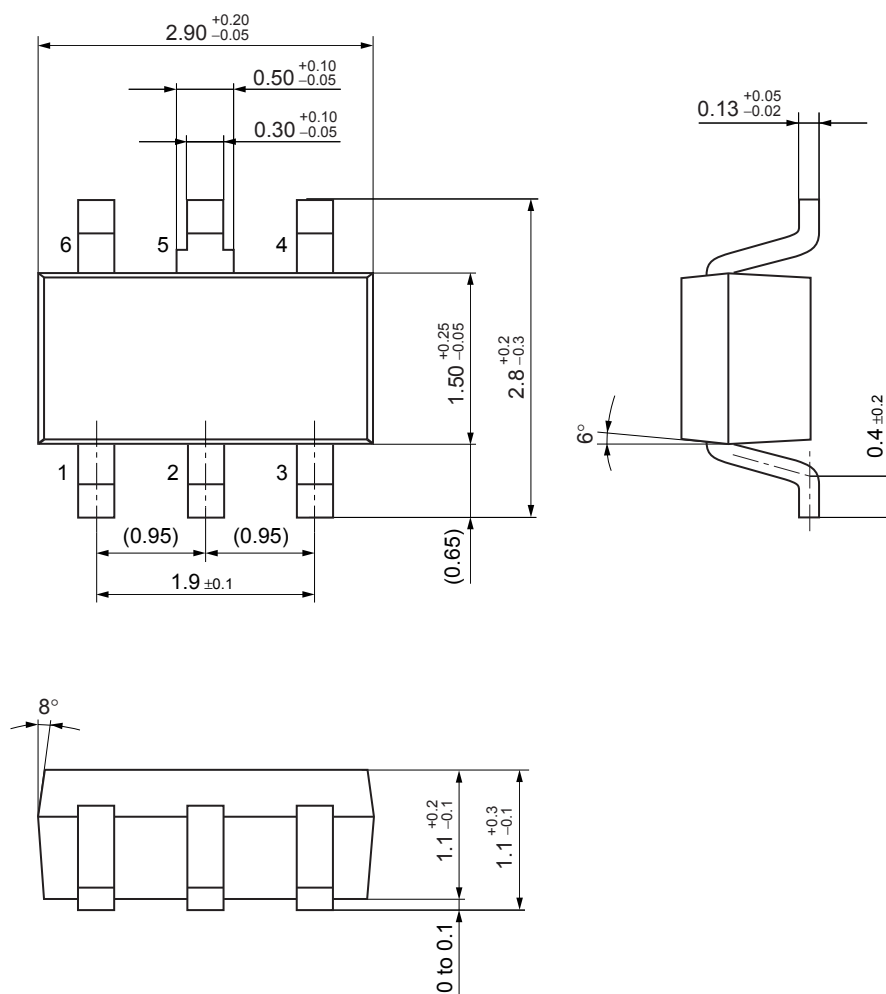
### ■ Internal Connection





# Mini6-G4-B

Unit: mm



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