

# DMC205C0

Silicon NPN epitaxial planar type

For low frequency amplification

## ■ Features

- High forward current transfer ratio  $h_{FE}$  with excellent linearity
- Low collector-emitter saturation voltage  $V_{CE(sat)}$
- Halogen-free / RoHS compliant  
(EU RoHS / UL-94 V-0 / MSL: Level 1 compliant)

## ■ Marking Symbol: D6

## ■ Basic Part Number

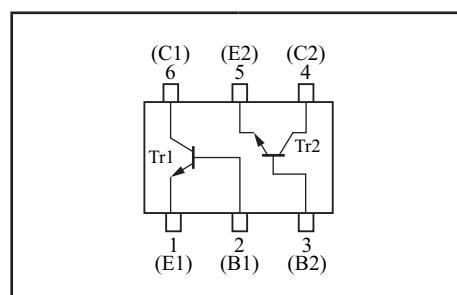
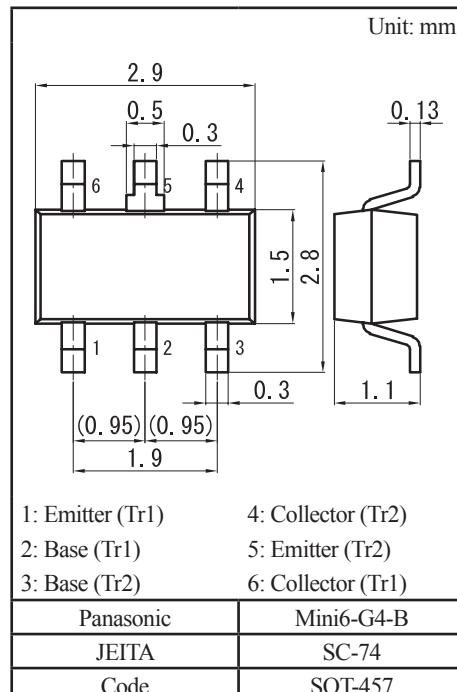
Dual DSC2C01 (Individual)

## ■ Packaging

DMC205C00R Embossed type (Thermo-compression sealing): 3000 pcs / reel (standard)

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

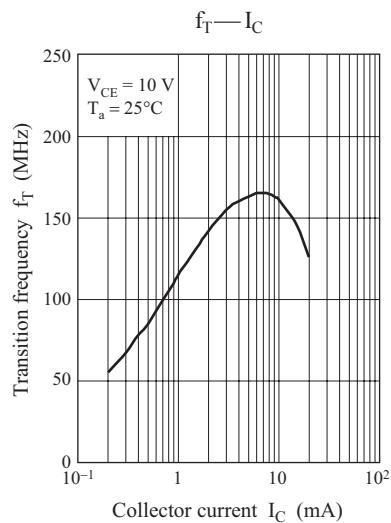
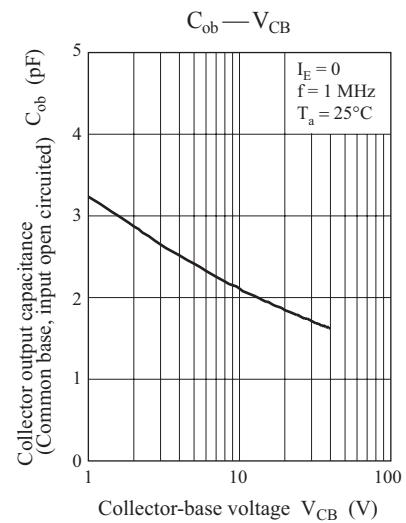
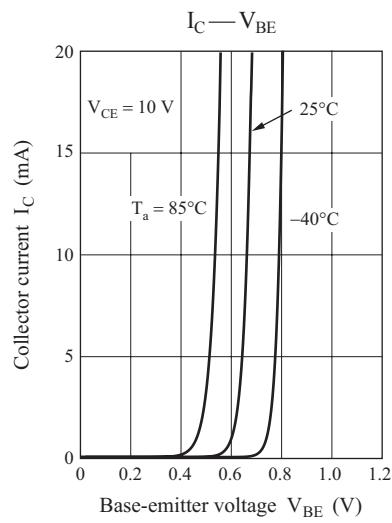
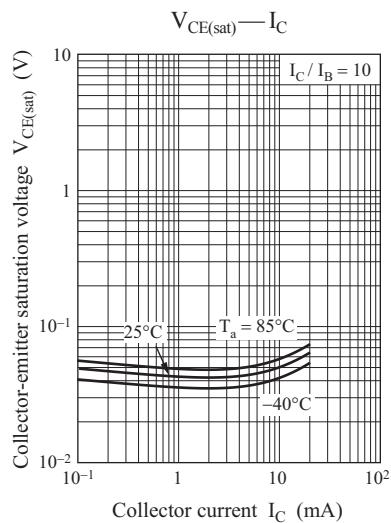
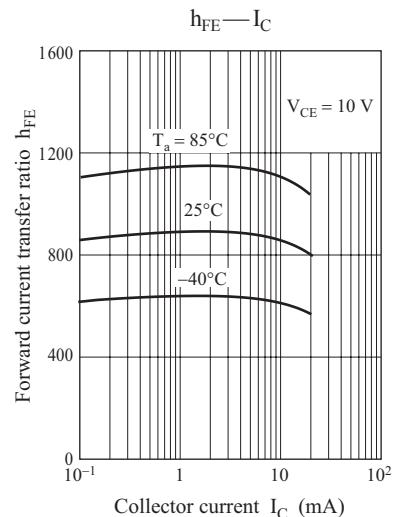
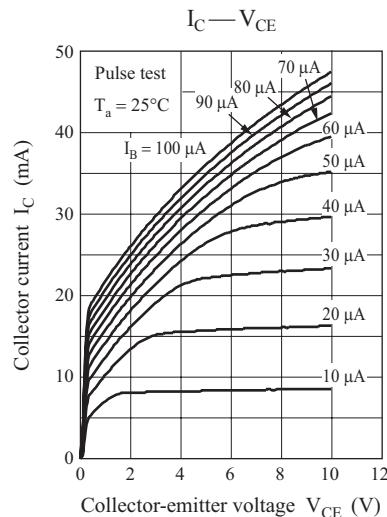
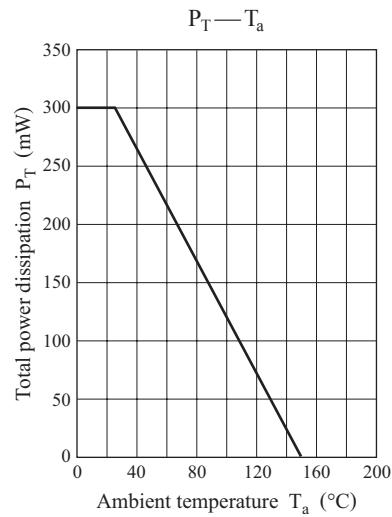
	Parameter	Symbol	Rating	Unit
Tr1	Collector-base voltage (Emitter open)	$V_{CBO}$	100	V
	Collector-emitter voltage (Base open)	$V_{CEO}$	100	V
Tr2	Emitter-base voltage (Collector open)	$V_{EBO}$	15	V
	Collector current	$I_C$	20	mA
Overall	Peak collector current	$I_{CP}$	50	mA
	Total power dissipation	$P_T$	300	mW
	Junction temperature	$T_j$	150	°C
	Operating ambient temperature	$T_{opr}$	-40 to +85	°C
	Storage temperature	$T_{stg}$	-55 to +150	°C



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

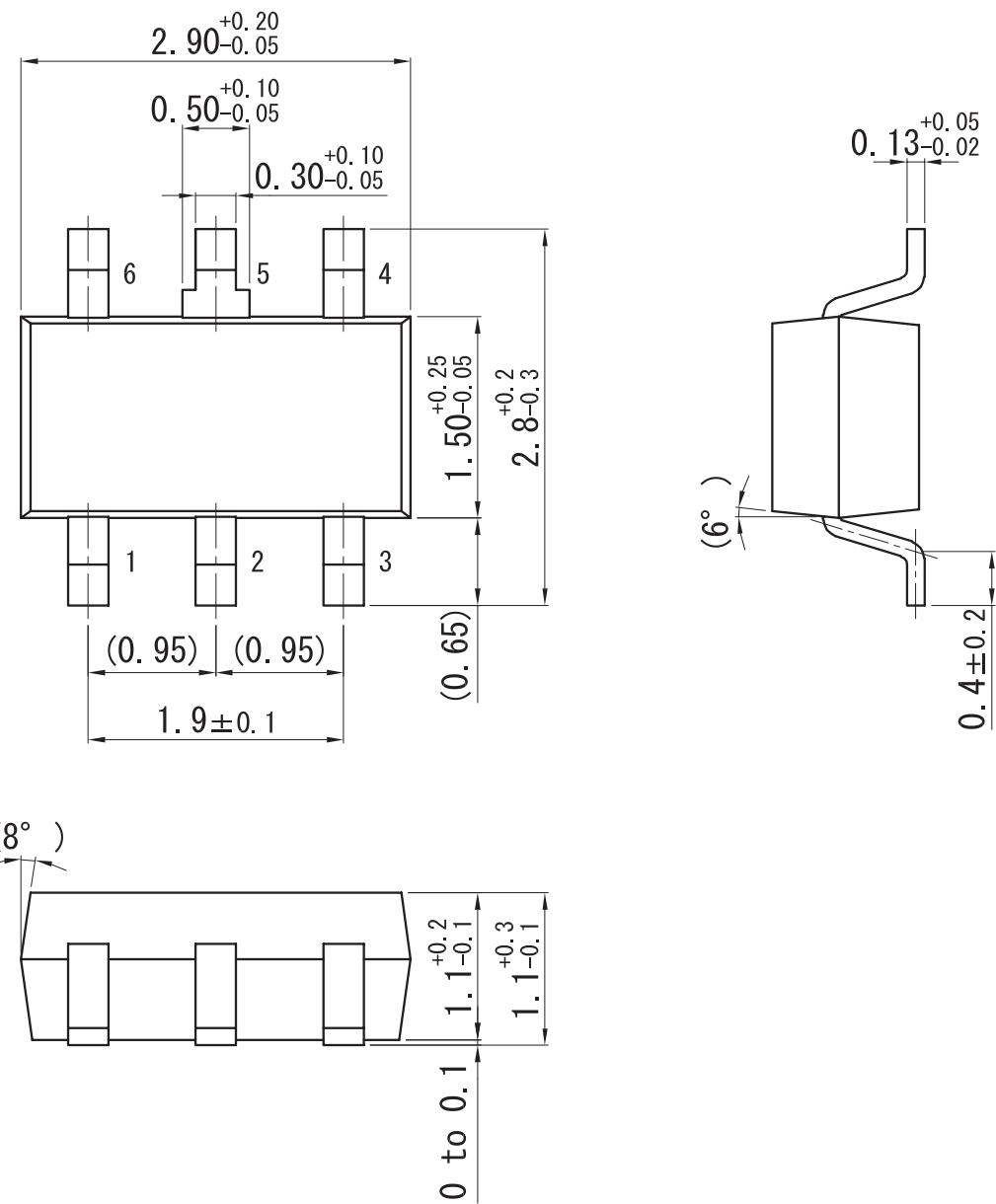
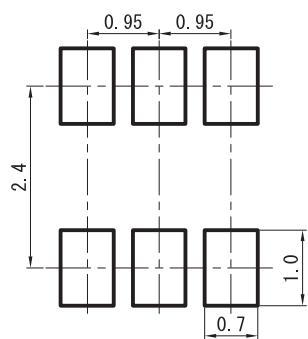
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-base voltage (Emitter open)	$V_{CBO}$	$I_C = 10 \mu\text{A}, I_E = 0$	100			V
Collector-emitter voltage (Base open)	$V_{CEO}$	$I_C = 1 \text{ mA}, I_B = 0$	100			V
Emitter-base voltage (Collector open)	$V_{EBO}$	$I_E = 10 \mu\text{A}, I_C = 0$	15			V
Collector-base cutoff current (Emitter open)	$I_{CBO}$	$V_{CB} = 60 \text{ V}, I_E = 0$			0.1	$\mu\text{A}$
Collector-emitter cutoff current (Base open)	$I_{CEO}$	$V_{CE} = 60 \text{ V}, I_B = 0$			1	$\mu\text{A}$
Forward current transfer ratio	$h_{FE}$	$V_{CE} = 10 \text{ V}, I_C = 2 \text{ mA}$	400		1200	—
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 10 \text{ mA}, I_B = 1 \text{ mA}$		0.05	0.20	V
Transition frequency	$f_T$	$V_{CE} = 10 \text{ V}, I_C = 2 \text{ mA}$		140		MHz

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



**Mini6-G4-B**

Unit: mm

**■ Land Pattern (Reference) (Unit: mm)**

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