

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): 3 000 pcs / reel (standard)

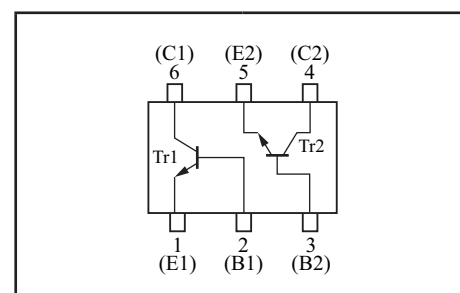
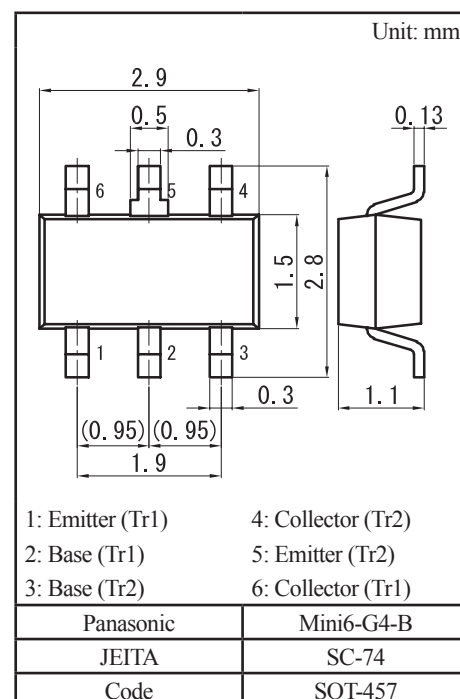
■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

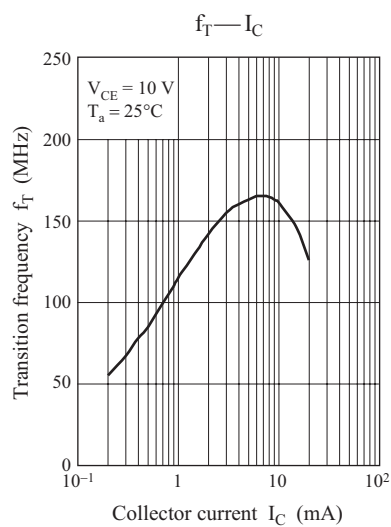
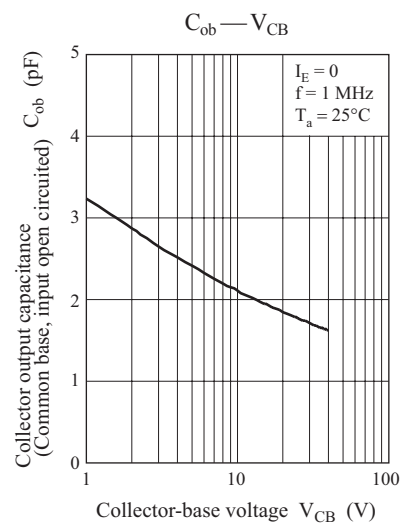
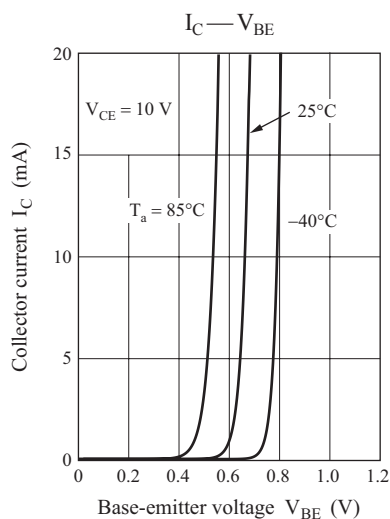
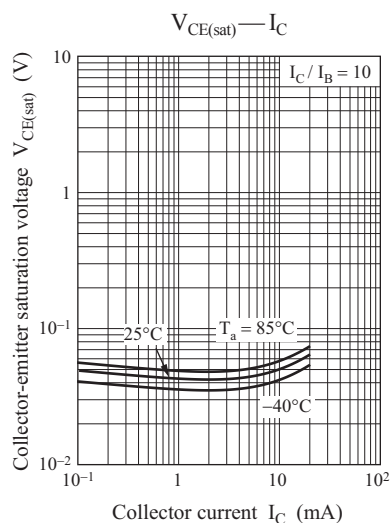
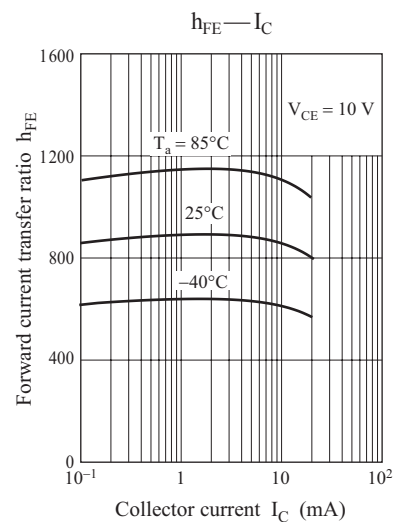
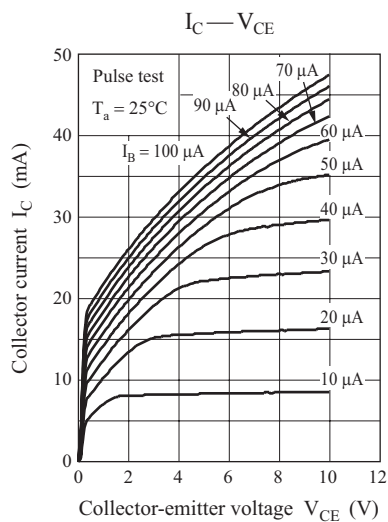
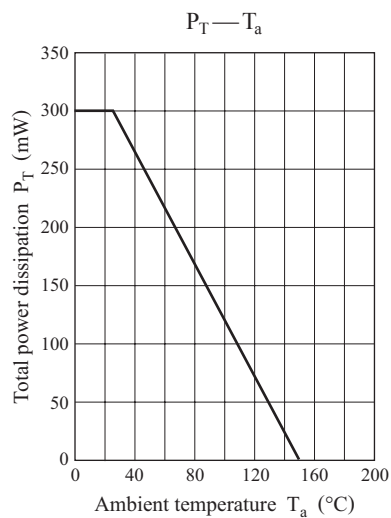
	Parameter	Symbol	Rating	Unit
Tr1 Tr2	Collector-base voltage (Emitter open)	V_{CBO}	100	V
	Collector-emitter voltage (Base open)	V_{CEO}	100	V
	Emitter-base voltage (Collector open)	V_{EBO}	15	V
	Collector current	I_C	20	mA
	Peak collector current	I_{CP}	50	mA
Overall	Total power dissipation	P_T	300	mW
	Junction temperature	T_j	150	$^\circ\text{C}$
	Operating ambient temperature	T_{opr}	-40 to +85	$^\circ\text{C}$
	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}	$I_C = 10 \mu\text{A}$, $I_E = 0$	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	μA
Collector-emitter cutoff current (Base open)	I_{CEO}	$V_{CE} = 60 \text{ V}$, $I_B = 0$			1	μA
Forward current transfer ratio	h_{FE}	$V_{CE} = 10 \text{ V}$, $I_C = 2 \text{ mA}$	400		1 200	—
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.





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