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

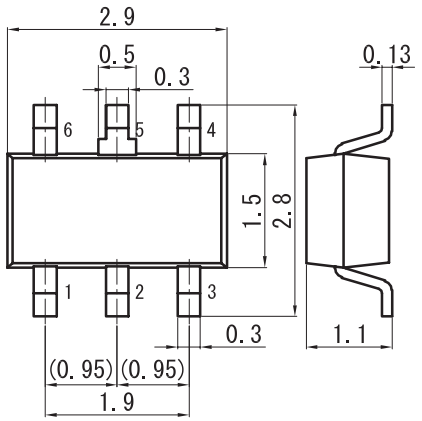
■ Basic Part Number

Dual DSC2C01 (Individual)

■ Packaging

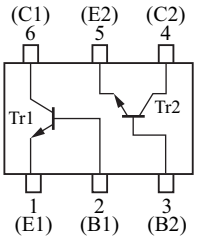
DMC205C00R Embossed type (Thermo-compression sealing): 3 000 pcs / reel (standard)

Unit: mm



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

Panasonic	Mini6-G4-B
JEITA	SC-74
Code	SOT-457



■ Absolute Maximum Ratings $T_a = 25°C$

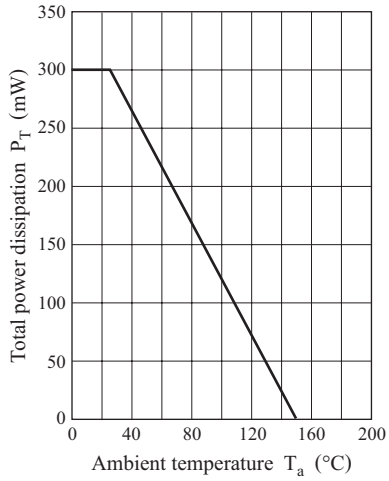
Parameter		Symbol	Rating	Unit
Tr1 Tr2	Collector-base voltage (Emitter open)	V_{CBO}	100	V
	Collector-emitter voltage (Base open)	V_{CEO}	100	V
	Emitter-base voltage (Collector open)	V_{EBO}	15	V
	Collector current	I_C	20	mA
	Peak collector current	I_{CP}	50	mA
Overall	Total power dissipation	P_T	300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

■ Electrical Characteristics $T_a = 25°C \pm 3°C$

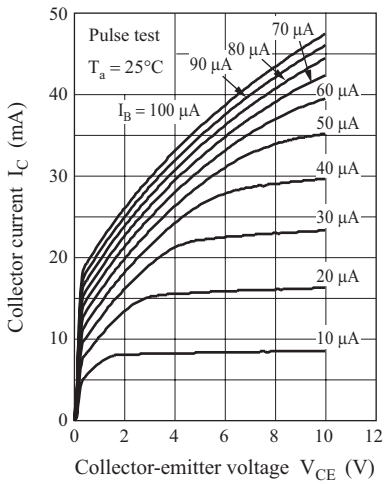
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-base voltage (Emitter open)	V_{CBO}	$I_C = 10\ \mu A$, $I_E = 0$	100			V
Collector-emitter voltage (Base open)	V_{CEO}	$I_C = 1$ mA, $I_B = 0$	100			V
Emitter-base voltage (Collector open)	V_{EBO}	$I_E = 10\ \mu A$, $I_C = 0$	15			V
Collector-base cutoff current (Emitter open)	I_{CBO}	$V_{CB} = 60$ V, $I_E = 0$			0.1	µA
Collector-emitter cutoff current (Base open)	I_{CEO}	$V_{CE} = 60$ V, $I_B = 0$			1	µA
Forward current transfer ratio	h_{FE}	$V_{CE} = 10$ V, $I_C = 2$ mA	400		1 200	—
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 10$ mA, $I_B = 1$ mA		0.05	0.20	V
Transition frequency	f_T	$V_{CE} = 10$ V, $I_C = 2$ mA		140		MHz

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

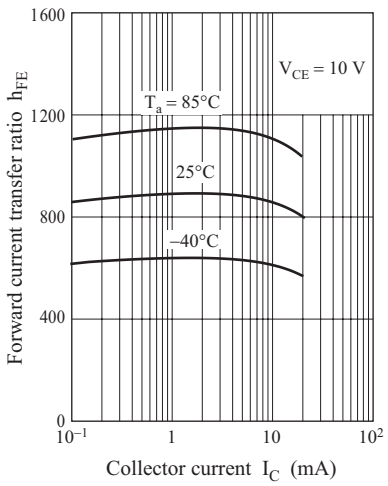
P_T — T_a



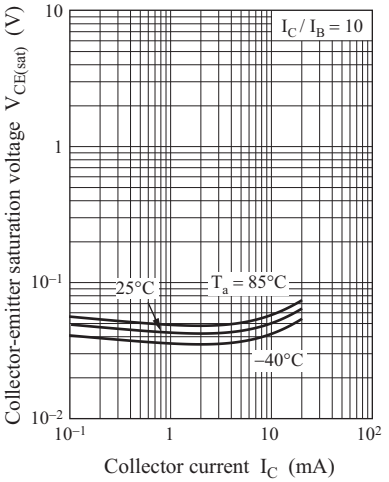
I_C — V_{CE}



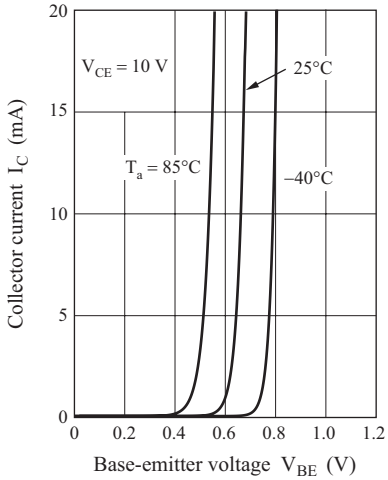
h_{FE} — I_C



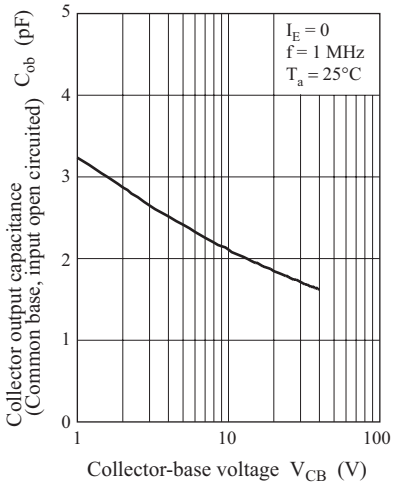
$V_{CE(sat)}$ — I_C



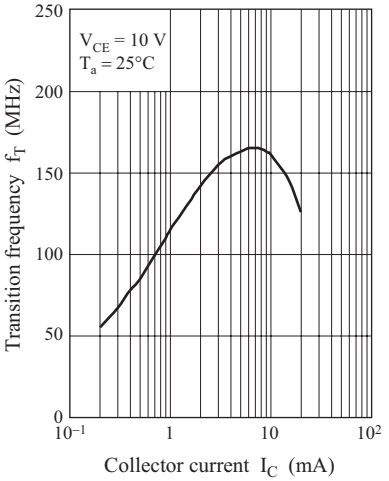
I_C — V_{BE}



C_{ob} — V_{CB}

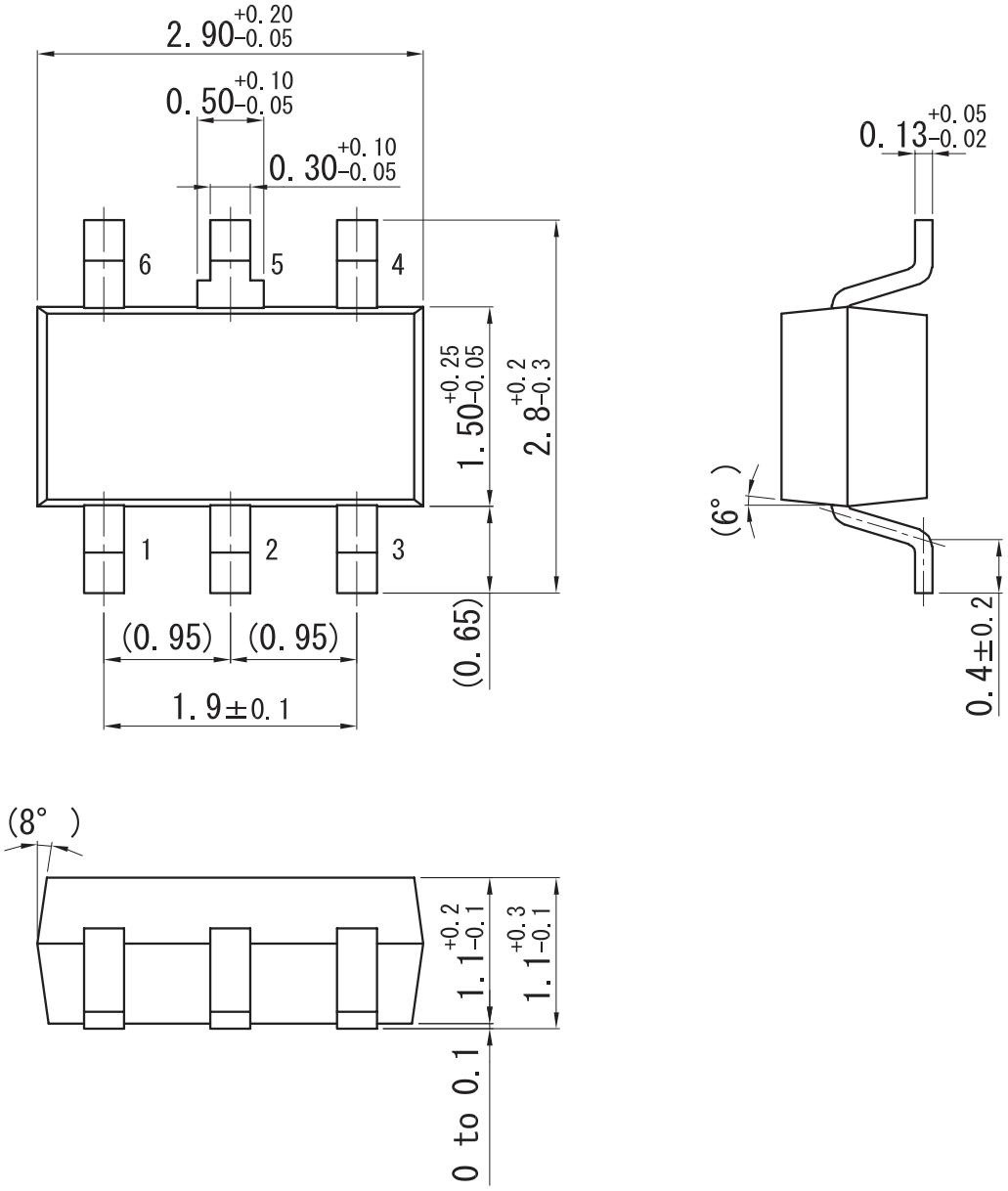


f_T — I_C

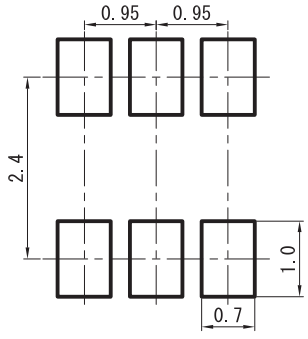


Mini6-G4-B

Unit: mm



■ Land Pattern (Reference) (Unit: mm)



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