

DMC506E2

Silicon NPN epitaxial planar type

For high-frequency amplification
DMC206E2 in SMini6 type package

■ Features

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

■ Basic Part Number

Dual DSC2G02 (Individual)

■ Packaging

DMC506E20R 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}	30	V
Collector-emitter voltage (Base open)	V_{CEO}	20	V
Emitter-base voltage (Collector open)	V_{EBO}	3	V
Collector current	I_C	15	mA
Total power dissipation	P_T	150	mW
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{slg}	-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}	$I_C = 10 \mu\text{A}, I_E = 0$	30			V
Collector-emitter voltage (Base open)	V_{EBO}	$I_E = 10 \mu\text{A}, I_C = 0$	3			V
Base-emitter voltage	V_{BE}	$V_{CE} = 6 \text{ V}, I_C = 1 \text{ mA}$		0.72		V
Forward current transfer ratio	h_{FE}	$V_{CE} = 6 \text{ V}, I_C = 1 \text{ mA}$	65		260	—
Transition frequency	f_T	$V_{CE} = 6 \text{ V}, I_C = 1 \text{ mA}$	450	650		MHz
Reverse transfer capacitance(Common emitter)	C_{re}	$V_{CE} = 6 \text{ V}, I_C = 1 \text{ mA}, f = 10.7 \text{ MHz}$		0.6		pF
Power gain	PG	$V_{CE} = 6 \text{ V}, I_C = 1 \text{ mA}, f = 100 \text{ MHz}$		24		dB
Noise figure	NF	$V_{CE} = 6 \text{ V}, I_C = 1 \text{ mA}, f = 100 \text{ MHz}$		3.3		dB

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

■ Package

• Code

SMini6-F3-B

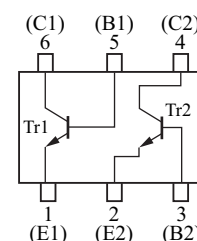
Package dimension clicks here.→

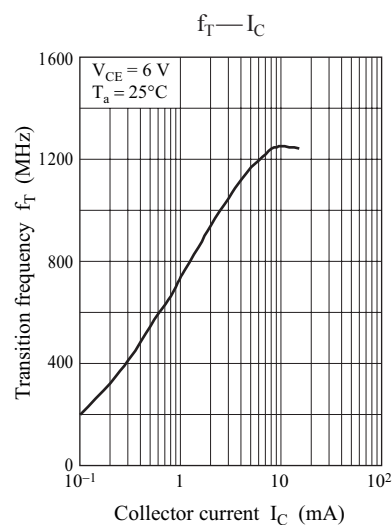
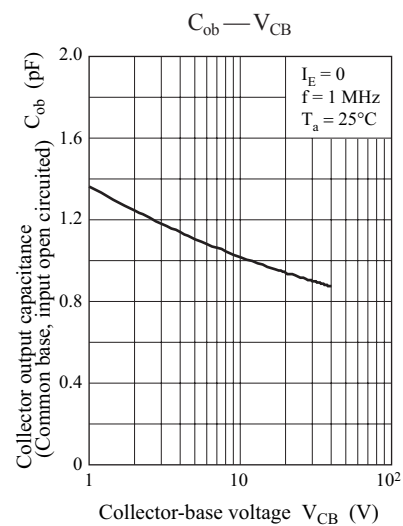
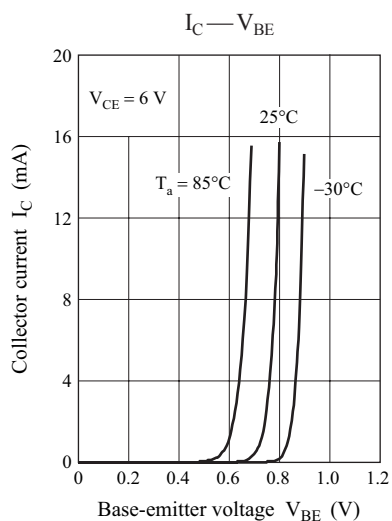
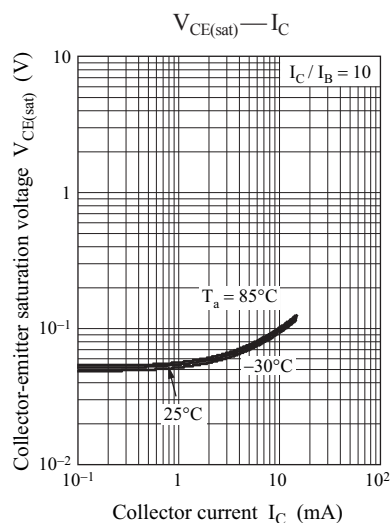
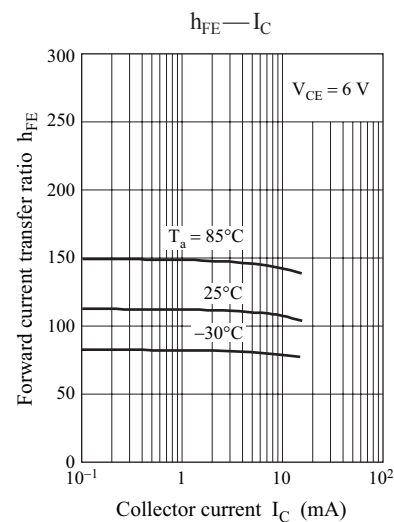
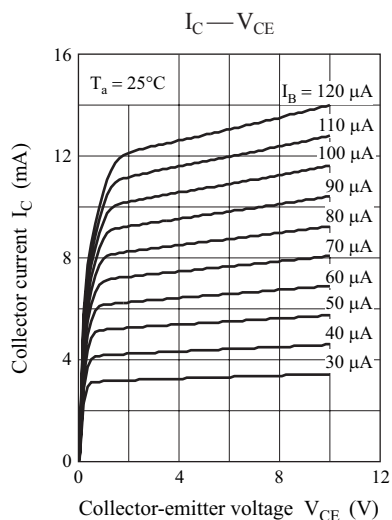
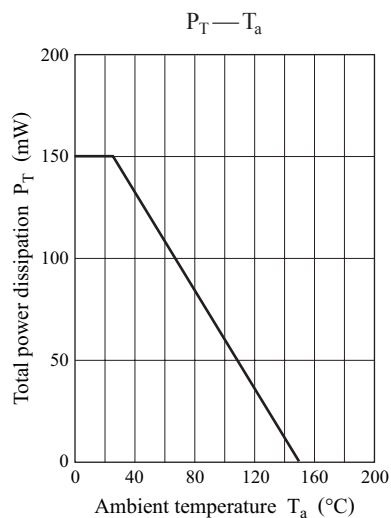
• Pin Name

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

■ Marking Symbol: D2

■ Internal Connection





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Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: info@moschip.ru

Skype отдела продаж:

moschip.ru

moschip.ru_4

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