DMC506E2

Silicon NPN epitaxial planar type

For high-frequency amplification DMC206E2 in SMini6 type package

Features

- \bullet 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 $T_a = 25^{\circ}C$

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

Parameter	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	Tj	150	°C
Storage temperature	T _{stg}	-55 to +150	°C

Package

Code

SMini6-F3-B

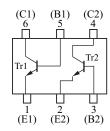
Package dimension clicks here. $\!\!\!\!\rightarrow$

• 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

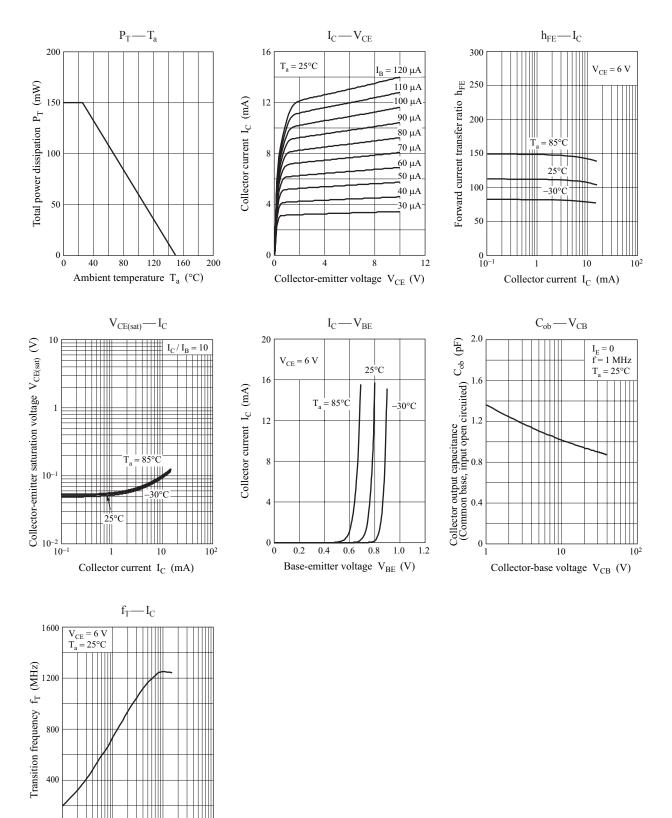


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Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Collector-base voltage (Emitter open)	V _{CBO}	$I_{\rm C} = 10 \ \mu {\rm A}, I_{\rm E} = 0$	30			V
Collector-emitter voltage (Base open)	V _{EBO}	$I_{\rm E} = 10 \ \mu {\rm A}, I_{\rm C} = 0$	3			V
Base-emitter voltage	V _{BE}	$V_{CE} = 6 V, I_C = 1 mA$		0.72		V
Forward current transfer ratio	h _{FE}	$V_{CE} = 6 V, I_C = 1 mA$	65		260	
Transition frequency	f_{T}	$V_{CE} = 6 V, I_C = 1 mA$	450	650		MHz
Reverse transfer capacitance(Common emitter)	C _{re}	$V_{CE} = 6 V, I_C = 1 mA, f = 10.7 MHz$		0.6		pF
Power gain	PG	$V_{CE} = 6 V, I_C = 1 mA, f = 100 MHz$		24		dB
Noise figure	NF	$V_{CE} = 6 V, I_C = 1 mA, f = 100 MHz$		3.3		dB

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

DMC506E2

Panasonic



10 Collector current I_C (mA)

 10^{2}

1

0 └─ 10⁻¹

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