Unit: mm

TOSHIBA Transistor Silicon NPN Epitaxial Type (PCT process)

2SC3112

For Audio Amplifier and Switching Applications

• High DC current gain: $h_{FE} = 600 \sim 3600$

• High breakdown voltage: $V_{CEO} = 50 \text{ V}$

• High collector current: IC = 150 mA (max)

Maximum Ratings (Ta = 25°C)

Characteristics	Symbol	Rating	Unit
Collector-base voltage	V _{CBO}	50	V
Collector-emitter voltage	V _{CEO}	50	V
Emitter-base voltage	V _{EBO}	5	٧
Collector current	IC	150	mA
Base current	Ι _Β	30	mA
Collector power dissipation	P _C	400	mW
Junction temperature	Tj	125	°C
Storage temperature range	T _{stg}	-55~125	°C

2-5F1B

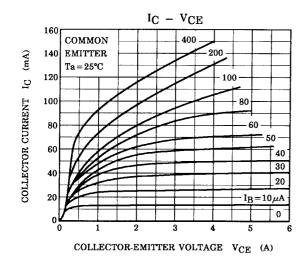
Weight: 0.21 g (typ.)

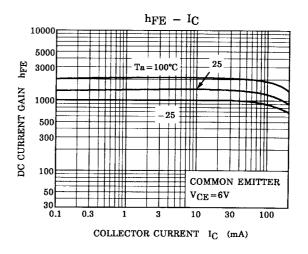
TOSHIBA

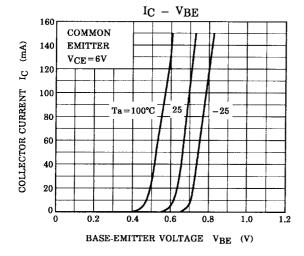
Electrical Characteristics (Ta = 25°C)

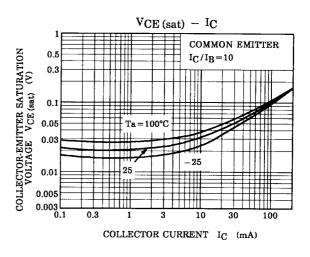
Characteristics	Symbol	Test Condition	Min	Тур.	Max	Unit	
Collector cut-off current	I _{CBO}	V _{CB} = 50 V, I _E = 0	_	_	0.1	μΑ	
Emitter cut-off current	I _{EBO}	V _{EB} = 5 V, I _C = 0	_	_	0.1	μА	
DC current gain	h _{FE} (Note)	V _{CE} = 6 V, I _C = 2 mA	600		3600		
Collector-emitter saturation voltage	V _{CE} (sat)	I _C = 100 mA, I _B = 10 mA	_	0.12	0.25	V	
Transition frequency	f _T	V _{CE} = 10 V, I _C = 10 mA	100	250	_	MHz	
Collector output capacitance	C _{ob}	V _{CB} = 10 V, I _E = 0, f = 1 MHz	_	3.5	_	pF	
Noise figure —	NF (1)	$\begin{aligned} &\text{V}_{CE} = 6 \text{ V, I}_{C} = 0.1 \text{ mA, f} = 100 \text{ Hz,} \\ &\text{R}_{G} = 10 \text{ k}\Omega \end{aligned}$	_	0.5	—	dB	
	NF (2)	$\begin{split} &V_{CE}=6 \text{ V, I}_{C}=0.1 \text{ mA, f}=1 \text{ kHz,} \\ &R_{G}=10 \text{ k}\Omega \end{split}$	_	0.3	_	uБ	

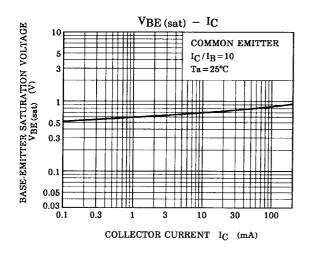
Note: hFE classification A: 600~1800, B: 1200~3600

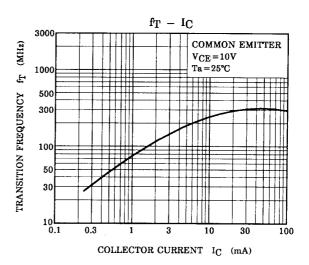




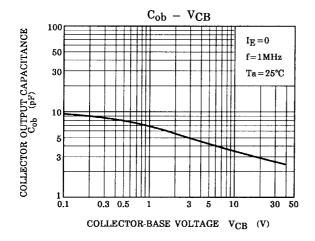


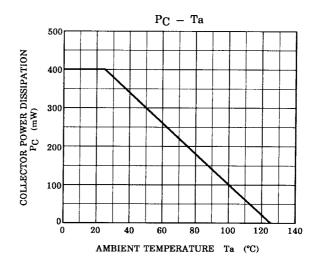






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