TOSHIBA Transistor Silicon NPN Epitaxial Type (PCT process)

2SC4667

Ultra High Speed Switching Applications Computer, Counter Applications

• High transition frequency: $f_T = 400 \text{ MHz}$ (typ.)

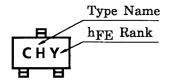
• Low saturation voltage: $V_{CE (sat)} = 0.3 \text{ V (max)}$

• High speed switching time: $t_{stg} = 15 \text{ ns (typ.)}$

Maximum Ratings (Ta = 25°C)

Characteristics	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	40	V
Collector-emitter voltage	V_{CEO}	15	V
Emitter-base voltage	V _{EBO}	5	V
Collector current	IC	200	mA
Base current	ΙΒ	40	mA
Collector power dissipation	P _C	100	mW
Junction temperature	Tj	125	°C
Storage temperature range	T _{stg}	−55 ~ 125	°C

Marking



1. BASE
2. EMITTER
3. COLLECTOR

JEDEC

JEITA

Unit: mm

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2-2E1A

Weight: 0.006 g (typ.)

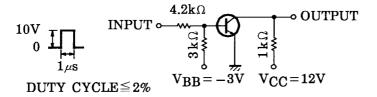
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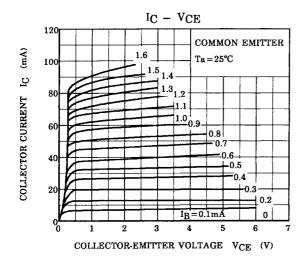
Electrical Characteristics (Ta = 25°C)

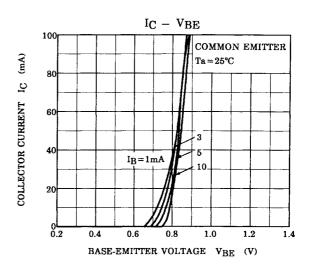
Chara	cteristics	Symbol	Test Condition	Min	Тур.	Max	Unit
Collector cut-off current		I _{CBO}	$V_{CB} = 40 \text{ V}, I_{E} = 0$	_	_	0.1	μА
Emitter cut-off cur	rent	I _{EBO}	V _{EB} = 5 V, I _C = 0	_	_	0.1	μА
DC current gain		h _{FE (1)} (Note 1)	V _{CE} = 1 V, I _C = 10 mA	40	_	240	
		h _{FE (2)}	V _{CE} = 1 V, I _C = 100 mA	20	_	_	
Collector-emitter	saturation voltage	V _{CE (sat)}	$I_C = 20 \text{ mA}, I_B = 1 \text{ mA}$	_	_	0.3	V
Base-emitter saturation voltage		V _{BE (sat)}	$I_C = 20 \text{ mA}, I_B = 1 \text{ mA}$	_	_	1.0	V
Transition frequency		f _T	V _{CE} = 10 V, I _C = 10 mA	200	400	_	MHz
Collector output capacitance		C _{ob}	$V_{CB} = 10 \text{ V}, I_{E} = 0, f = 1 \text{ MHz}$	_	4	6	pF
Switching time	Turn-on time	t _{on}			70		
	Storage time	t _{stg}	(Note 2)	_	15	_	ns
	Turn-off time	t _{off}		_	30	_	

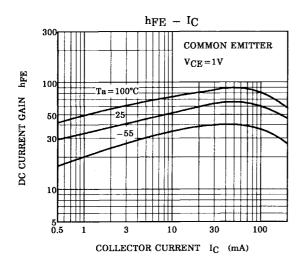
Note 1: hFE (1) classification R: 40~80, O: 70~140, Y: 120~240

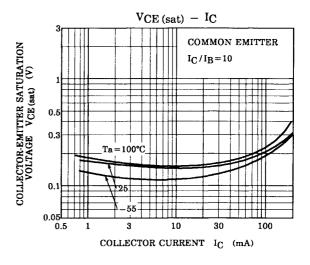
Note 2: Switching time test circuit

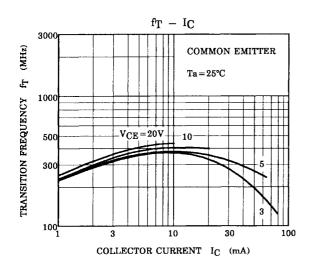


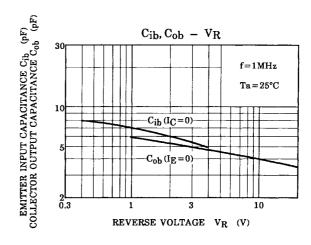


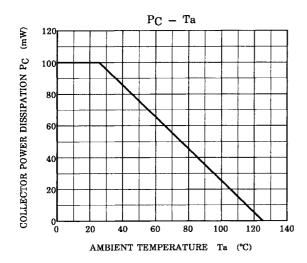












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