TOSHIBA Transistor Silicon NPN Epitaxial Type (PCT process)

2SC3326

For Muting and Switching Applications

Unit: mm

• High emitter-base voltage: $V_{EBO} = 25 \text{ V (min)}$

• High reverse h_{FE}: Reverse h_{FE} = 150 (typ.) ($V_{CE} = -2 \text{ V}, I_{C} = -4 \text{ mA}$)

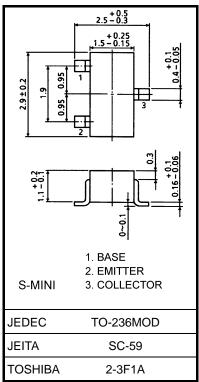
• Low on resistance: $R_{ON} = 1 \Omega$ (typ.) ($I_B = 5 \text{ mA}$)

• High DC current gain: hFE = 200~1200

• Small package

Absolute Maximum Ratings (Ta = 25°C)

Characteristics	Symbol	Rating	Unit	
Collector-base voltage	V_{CBO}	50	V	
Collector-emitter voltage	V _{CEO}	20	V	
Emitter-base voltage	V _{EBO}	25	V	
Collector current	IC	300	mA	
Base current	ΙΒ	60	mA	
Collector power dissipation	PC	150	mW	
Junction temperature	Tj	125	°C	
Storage temperature range	T _{stg}	-55~125	°C	



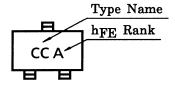
Weight: 0.012 g (typ.)

Note: Using continuously under heavy loads (e.g. the application of high temperature/current/voltage and the significant change in temperature, etc.) may cause this product to decrease in the

reliability significantly even if the operating conditions (i.e. operating temperature/current/voltage, etc.) are within the absolute maximum ratings.

Please design the appropriate reliability upon reviewing the Toshiba Semiconductor Reliability Handbook ("Handling Precautions"/"Derating Concept and Methods") and individual reliability data (i.e. reliability test report and estimated failure rate, etc).

Marking



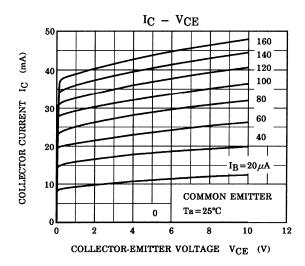


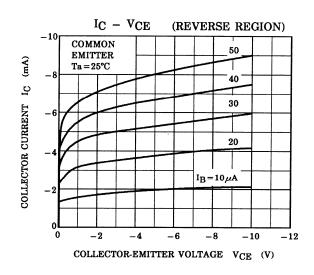
Electrical Characteristics (Ta = 25°C)

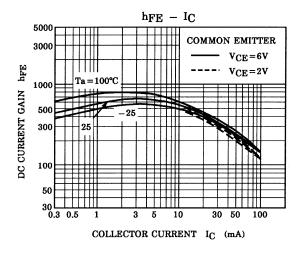
Chara	acteristics	Symbol	Test Condition	Min	Тур.	Max	Unit
Collector cut-off of	current	I _{CBO}	V _{CB} = 50 V, I _E = 0	_	_	0.1	μА
Emitter cut-off cu	rrent	I _{EBO}	V _{EB} = 25 V, I _C = 0	_	_	0.1	μΑ
DC current gain		h _{FE} (Note)	V _{CE} = 2 V, I _C = 4 mA	200	_	1200	
Collector-emitter	saturation voltage	V _{CE} (sat)	$I_C = 30 \text{ mA}, I_B = 3 \text{ mA}$	_	0.042	0.1	V
Base-emitter volta	age	V _{BE}	V _{CE} = 2 V, I _C = 4 mA	_	0.61	_	V
Transition freque	ncy	f _T	V _{CE} = 6 V, I _C = 4 mA	_	30	_	MHz
Collector output capacitance		C _{ob}	V _{CB} = 10 V, I _E = 0, f = 1 MHz	_	4.8	7	pF
Switching time Sto	Turn-on time	t _{on}	$\begin{array}{c c} & & & \text{OUTPUT} \\ \hline 10V & & & & & \\ \hline 1 \mu s & & & & \\ \hline & & & & & \\ \hline & & & & & \\ \hline & & & &$	_	160	_	
	Storage time	t _{stg}		_	500	_	ns
	Fall time	t _f		_	130	_	

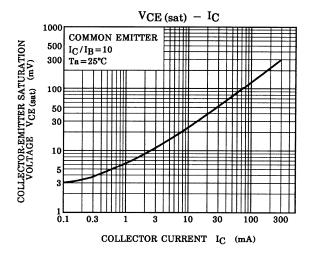
Note: hFE classification A: 200~700, B: 350~1200

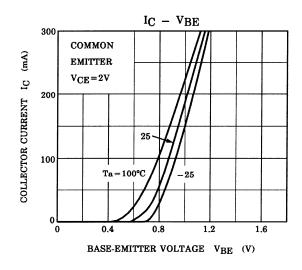
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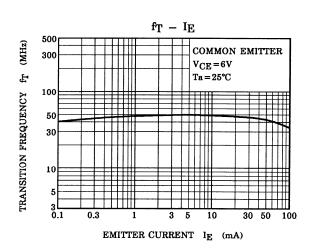


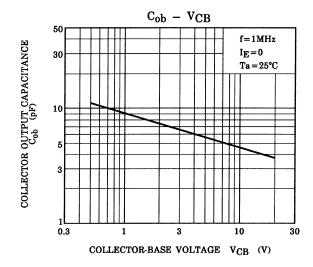


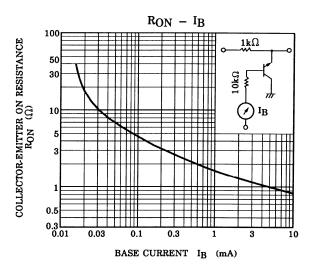


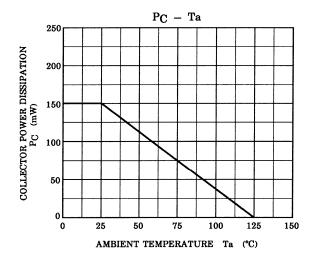












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