Unit: mm

TOSHIBA Transistor Silicon NPN Epitaxial Type (PCT process)

2SC3279

Strobe Flash Applications Medium Power Amplifier Applications

• High DC current gain and excellent hFE linearity

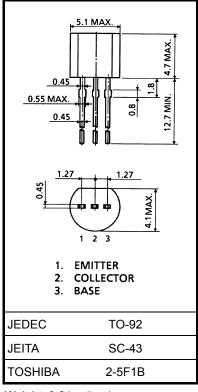
 $: h_{FE}(1) = 140 \sim 600 \text{ (VCE} = 1 \text{ V, IC} = 0.5 \text{ A)}$

: h_{FE} (2) = 70 (min), 200 (typ.) (V_{CE} = 1 V, I_{C} = 2 A)

• Low saturation voltage: V_{CE} (sat) = 0.5 V (max) (I_C = 2 A, I_B = 50 mA)

Absolute Maximum Ratings (Ta = 25°C)

Characteristics		Symbol	Rating	Unit	
Collector-base voltage		V_{CBO}	30	V	
Collector-emitter voltage		V _{CES}	30	V	
		V_{CEO}	10		
Emitter-base voltage		V _{EBO}	6	V	
Collector current	DC	IC	2	А	
	Pulsed (Note 1)	I _{CP}	5		
Base current		ΙΒ	0.2	Α	
Collector power dissipation		PC	750	mW	
Junction temperature		Tj	150	°C	
Storage temperature range		T _{stg}	-55~150	°C	



Weight: 0.21 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.

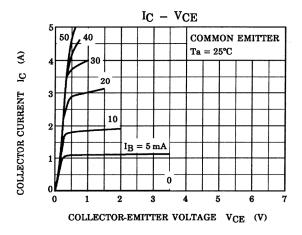
Please design the appropriate reliability upon reviewing the Toshiba Semiconductor Reliability Handbook ("Handling Precautions"/"Derating Concept and Methods") and individual reliability data (i.e. reliability test report and estimated failure rate, etc).

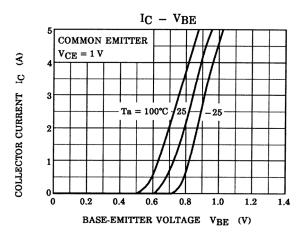
Note 1: Pulse width = 10 ms (max), duty cycle = 30% (max)

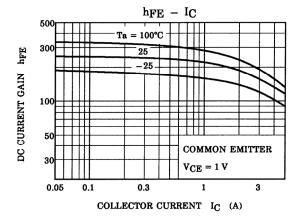
Electrical Characteristics (Ta = 25°C)

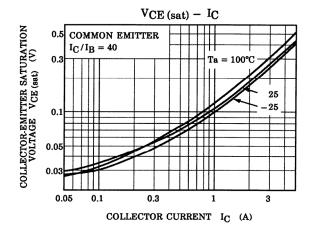
Characteristics	Symbol	Test Condition	Min	Тур.	Max	Unit
Collector cut-off current	I _{CBO}	$V_{CB} = 30 \text{ V}, I_{E} = 0$	_	_	0.1	μА
Emitter cut-off current	I _{EBO}	V _{EB} = 6 V, I _C = 0	_	_	0.1	μΑ
Collector-emitter breakdown voltage	V (BR) CEO	$I_C = 10 \text{ mA}, I_B = 0$	10	_	_	V
Emitter-base breakdown voltage	V (BR) EBO	I _E = 1 mA, I _C = 0	6	_	_	V
DC current gain	h _{FE (1)} (Note 2)	V _{CE} = 1 V, I _C = 0.5 A	140	_	600	
	h _{FE (2)}	V _{CE} = 1 V, I _C = 2 A	70	200	_	
Collector-emitter saturation voltage	V _{CE} (sat)	I _C = 2 A, I _B = 50 mA	_	0.2	0.5	V
Base-emitter voltage	V _{BE}	V _{CE} = 1 V, I _C = 2 A	_	0.86	1.5	V
Transition frequency	f _T	V _{CE} = 1 V, I _C = 0.5 A	_	150	_	MHz
Collector output capacitance	C _{ob}	V _{CB} = 10 V, I _E = 0, f = 1 MHz	_	27	_	pF

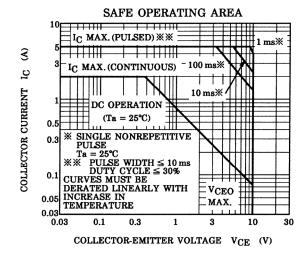
Note 2: h_{FE (1)} classification L: 140~240, M: 200~330, N: 300~450, P: 420~600

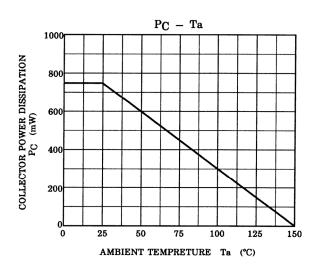












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20070701-EN GENERAL

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