

TOSHIBA Transistor Silicon NPN Epitaxial Type (PCT process)

2SC3279

Strobe Flash Applications

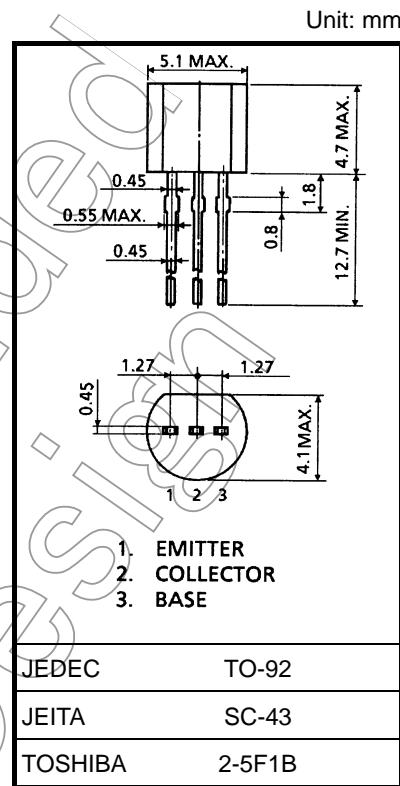
Medium Power Amplifier Applications

High DC current gain and excellent h_{FE} linearity: h_{FE} (1) = 140~600 (V_{CE} = 1 V, I_C = 0.5 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	V
Emitter-base voltage	V _{EBO}	6	V
Collector current	I _C	2	A
	I _{CP}	5	A
Base current	I _B	0.2	A
Collector power dissipation	P _C	750	mW
Junction temperature	T _j	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.

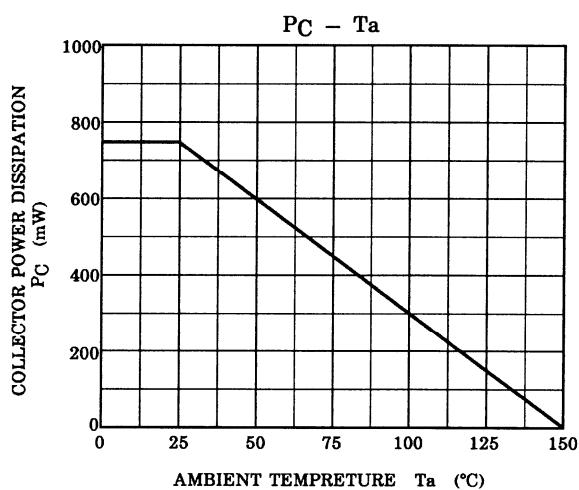
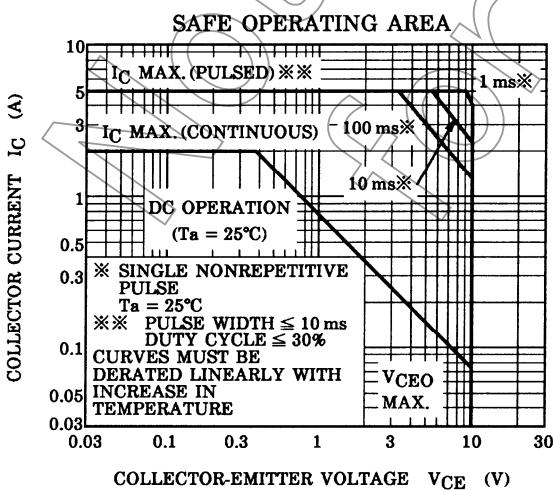
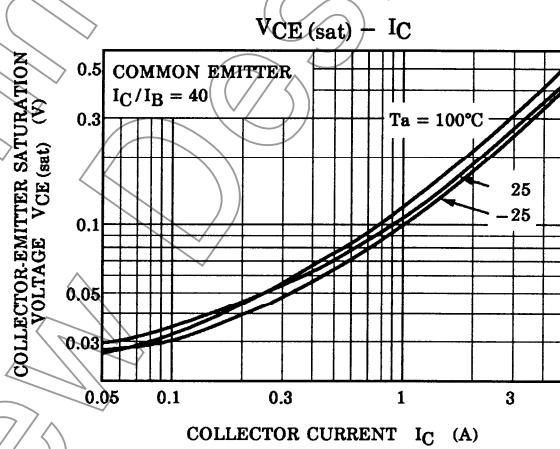
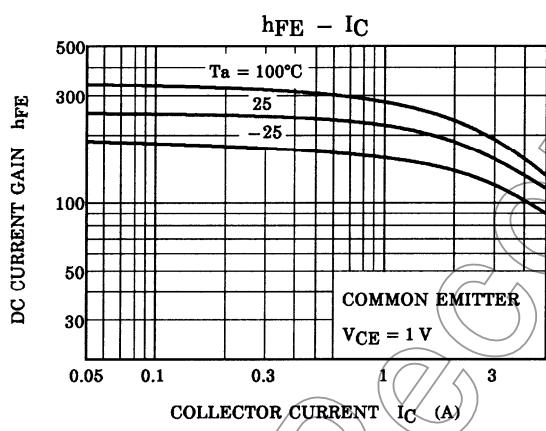
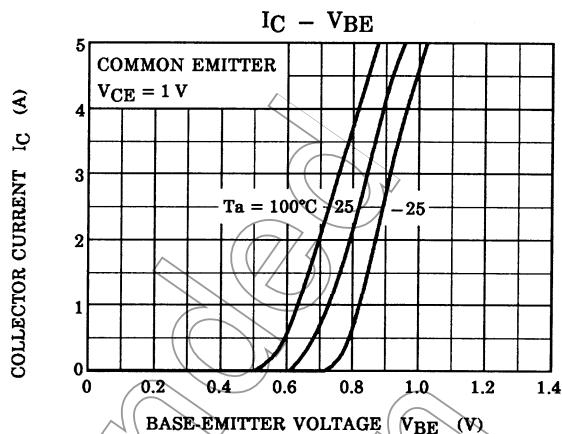
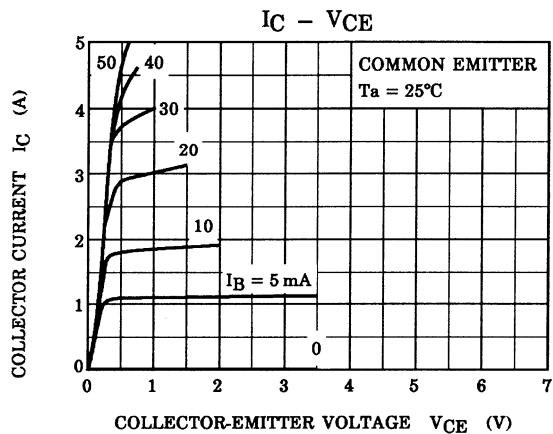
Please design the appropriate reliability upon reviewing the Toshiba Semiconductor Reliability Handbook ("Handling Precautions"/"Derating Concept and Methods") and individual reliability data (i.e. reliability test report and estimated failure rate, etc.).

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

Electrical Characteristics (Ta = 25°C)

Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Collector cut-off current	I _{CB0}	V _{CB} = 30 V, I _E = 0	—	—	0.1	μA
Emitter cut-off current	I _{EBO}	V _{EB} = 6 V, I _C = 0	—	—	0.1	μA
Collector-emitter breakdown voltage	V _(BR) CEO	I _C = 10 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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