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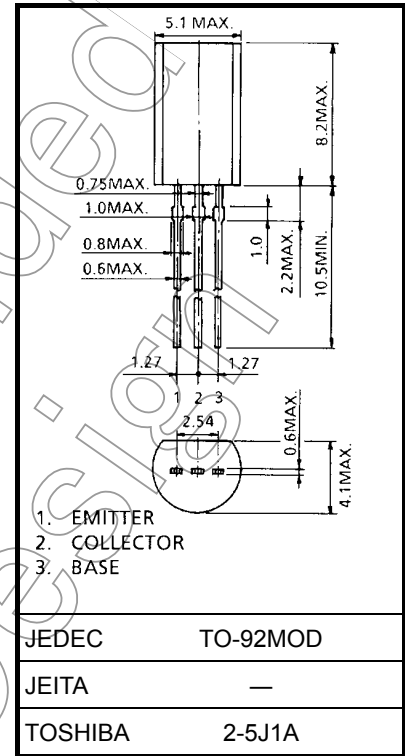
Strobe Flash Applications
 Medium Power Amplifier Applications

Unit: mm

- Excellent h_{FE} linearity : $h_{FE} (1) = 800$ to 3200 ($V_{CE} = 1$ V, $I_C = 0.5$ A)
 : $h_{FE} (2) = 500$ (typ.) ($V_{CE} = 1$ V, $I_C = 3$ A)
- Low saturation voltage : $V_{CE} (sat) = 0.5$ V (max) ($I_C = 3$ A, $I_B = 30$ mA)

Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Characteristics		Symbol	Rating	Unit
Collector-base voltage		V_{CBO}	30	V
Collector-emitter voltage		V_{CES}	30	V
		$V (BR)_{CEO}$	15	
Emitter-base voltage		V_{EBO}	6	V
Collector current	DC	I_C	3	A
	Pulse	I_{CP}	6	
Base current		I_B	0.8	A
Collector power dissipation		P_C	900	mW
Junction temperature		T_j	150	$^\circ\text{C}$
Storage temperature range		T_{stg}	-55 to 150	$^\circ\text{C}$



Weight: 0.36 g (typ.)

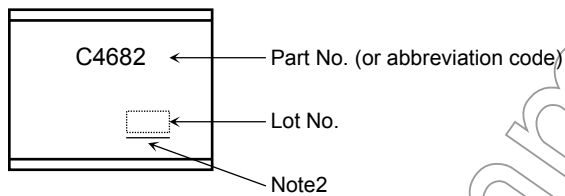
Note1: Using continuously under heavy loads (e.g. the application of high temperature/current/voltage and the significant change in temperature, etc.) may cause this product to decrease in the reliability significantly even if the operating conditions (i.e. operating temperature/current/voltage, etc.) 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).

Not for

Electrical Characteristics (Ta = 25°C)

Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Collector cut-off current	I_{CBO}	$V_{CB} = 30\text{ V}, I_E = 0$	—	—	1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 6\text{ V}, I_C = 0$	—	—	10	μA
Collector-emitter breakdown voltage	$V_{(BR) CEO}$	$I_C = 10\text{ mA}, I_B = 0$	15	—	—	V
DC current gain	$h_{FE (1)}$	$V_{CE} = 1\text{ V}, I_C = 0.5\text{ A}$	800	—	3200	
	$h_{FE (2)}$	$V_{CE} = 1\text{ V}, I_C = 3\text{ A}$	300	500	—	
Collector-emitter saturation voltage	$V_{CE (sat)}$	$I_C = 3\text{ A}, I_B = 30\text{ mA}$	—	0.25	0.5	V
Base-emitter voltage	V_{BE}	$V_{CE} = 1\text{ V}, I_C = 3\text{ A}$	—	0.85	1.2	V
Transition frequency	f_T	$V_{CE} = 1\text{ V}, I_C = 0.5\text{ A}$	—	150	—	MHz
Collector output capacitance	C_{ob}	$V_{CB} = 10\text{ V}, I_E = 0, f = 1\text{ MHz}$	—	30	—	pF

Marking

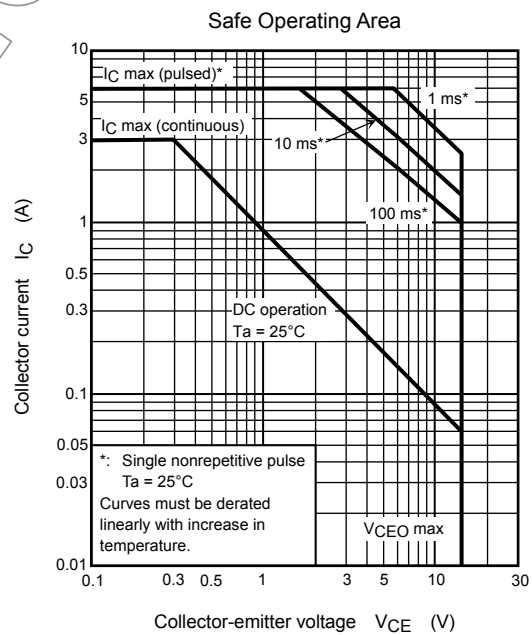
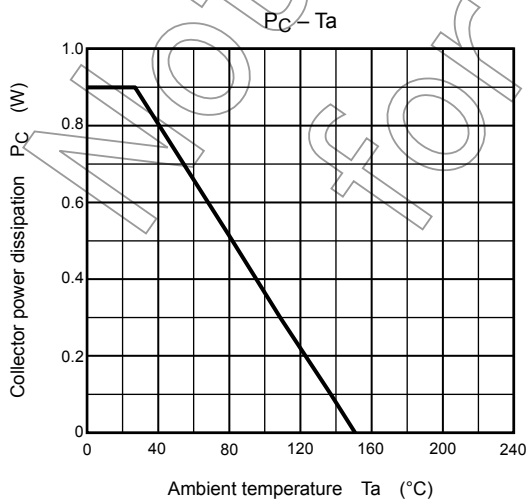
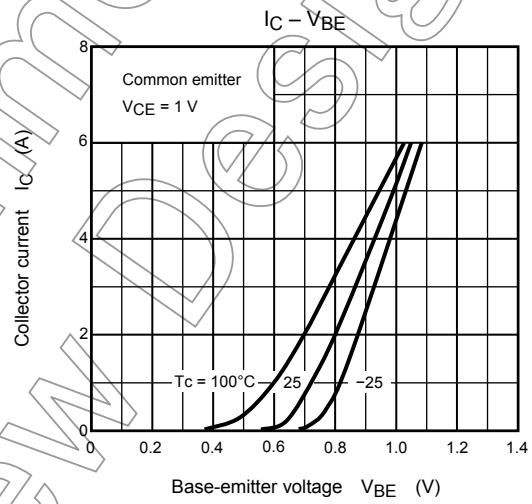
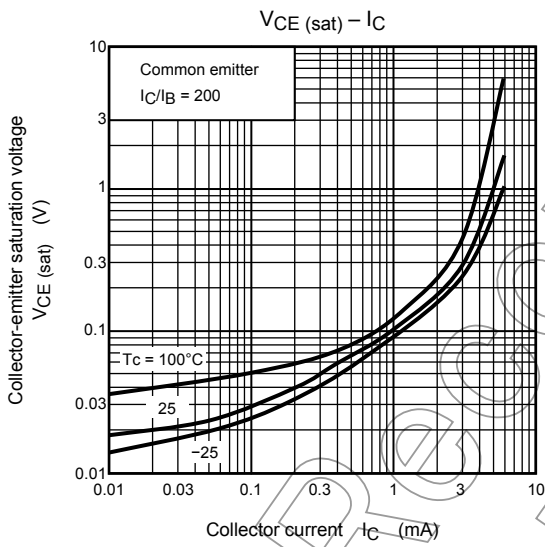
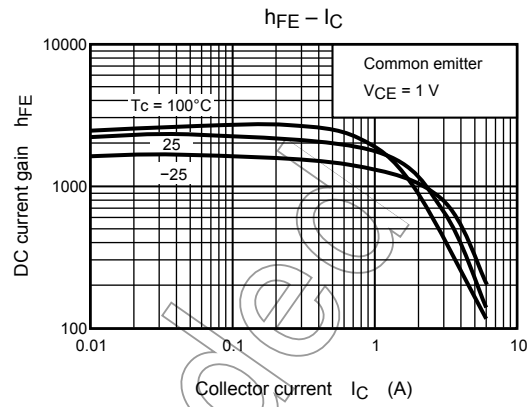
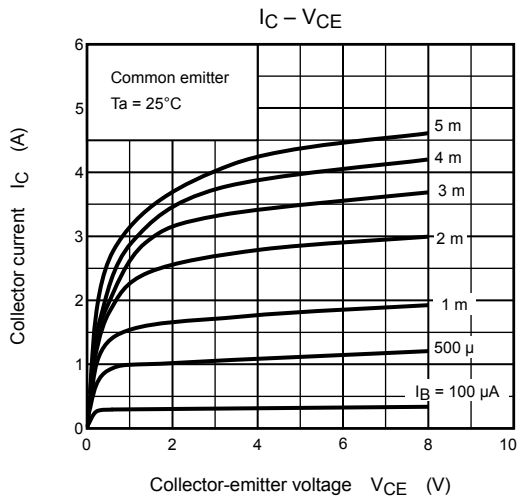


Note2: A line under a Lot No. identifies the indication of product Labels.

Not underlined: $[[Pb]]/INCLUDES > MCV$

Underlined: $[[G]]/RoHS COMPATIBLE$ or $[[G]]/RoHS [[Pb]]$

Please contact your TOSHIBA sales representative for details as to environmental matters such as the RoHS compatibility of Product. The RoHS is the Directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment.



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