

TOSHIBA Transistor Silicon NPN Triple Diffused Type

2SC5122

High-Voltage switching Applications

Unit: mm

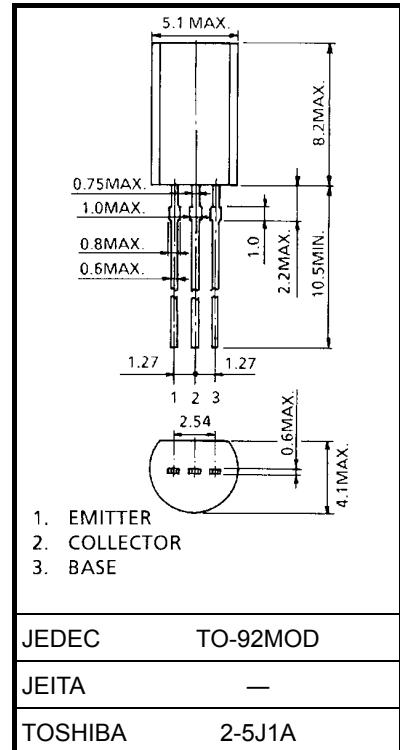
- High breakdown voltage: $V_{CEO} = 400$ V
- Low saturation voltage: $V_{CE} (\text{sat}) = 0.4$ V (typ.)
($I_C = 20$ mA, $I_B = 0.5$ mA)

Absolute Maximum Ratings (Ta = 25°C)

Characteristics		Symbol	Rating	Unit
Collector-base voltage		V_{CBO}	400	V
Collector-emitter voltage		V_{CEO}	400	V
Emitter-base voltage		V_{EBO}	7	V
Collector current	DC	I_C	50	mA
	Pulse	I_{CP}	100	
Base current		I_B	25	mA
Collector power dissipation		P_C	900	mW
Junction temperature		T_j	150	°C
Storage temperature range		T_{stg}	-55 to 150	°C

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).

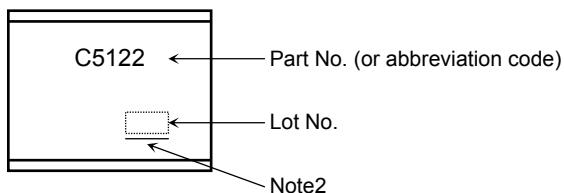


Weight: 0.36 g (typ.)

Electrical Characteristics (Ta = 25°C)

Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Collector cut-off current	I _{CBO}	V _{CB} = 400 V, I _E = 0	—	—	1	μA
Emitter cut-off current	I _{EBO}	V _{EB} = 7 V, I _C = 0	—	—	1	μA
Collector-emitter breakdown voltage	V _(BR) CEO	I _C = 1 mA, I _B = 0	400	—	—	V
DC current gain	h _{FE} (1)	V _{CE} = 5 V, I _C = 1 mA	80	—	—	
	h _{FE} (2)	V _{CE} = 5 V, I _C = 20 mA	100	—	300	
Collector-emitter saturation voltage	V _{CE} (sat)	I _C = 20 mA, I _B = 0.5 mA	—	0.4	1.0	V
Base-emitter voltage	V _{BE}	V _{CE} = 5 V, I _C = 20 mA	—	0.7	1.0	V
Collector output capacitance	C _{ob}	V _{CB} = 10 V, I _E = 0, f = 1 MHz	—	4	—	pF

Marking

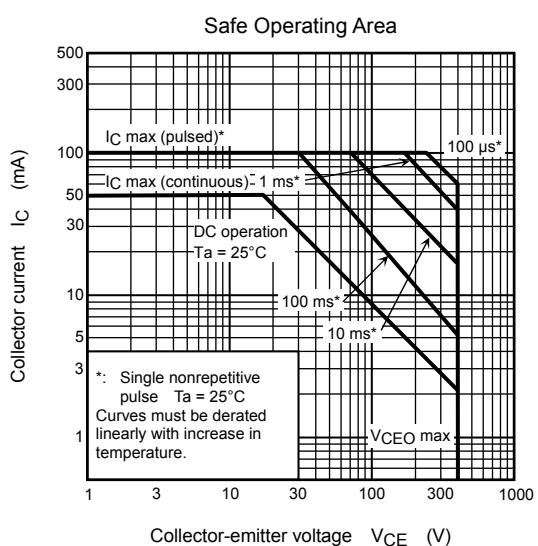
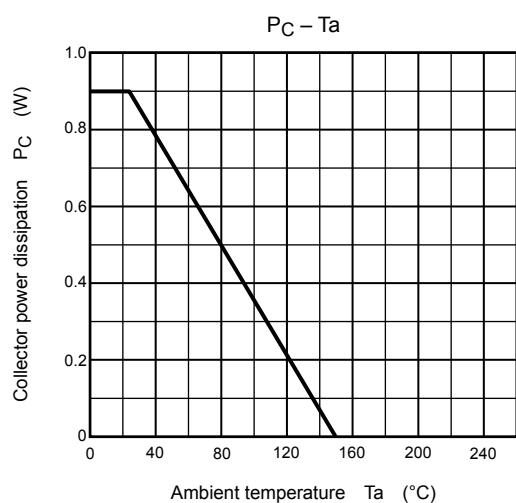
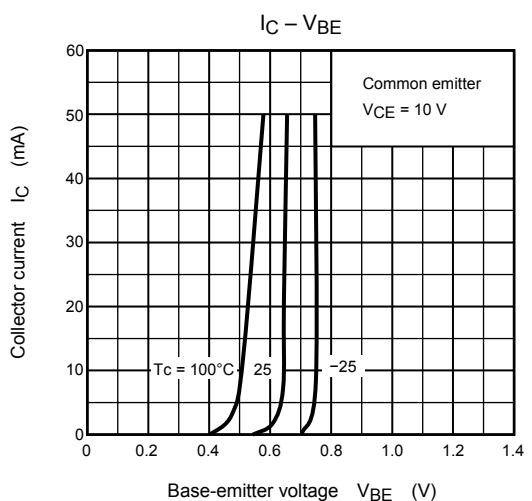
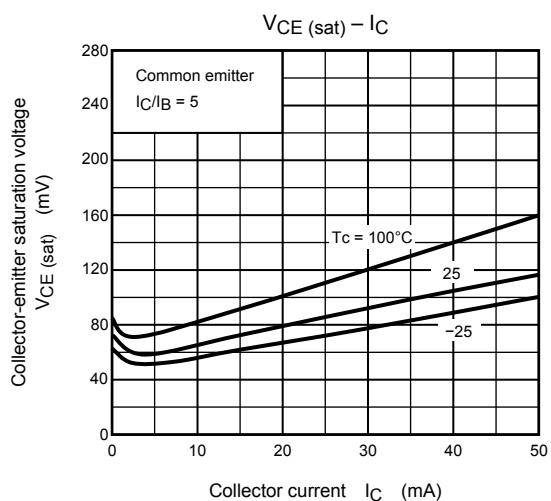
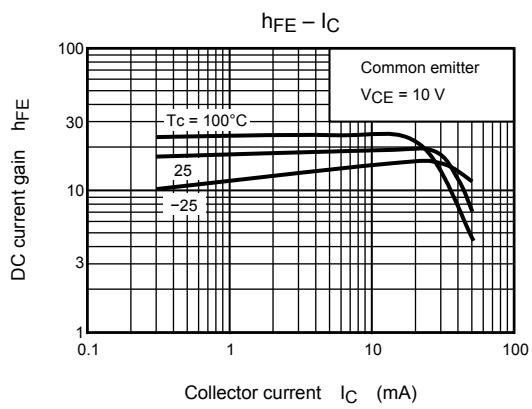
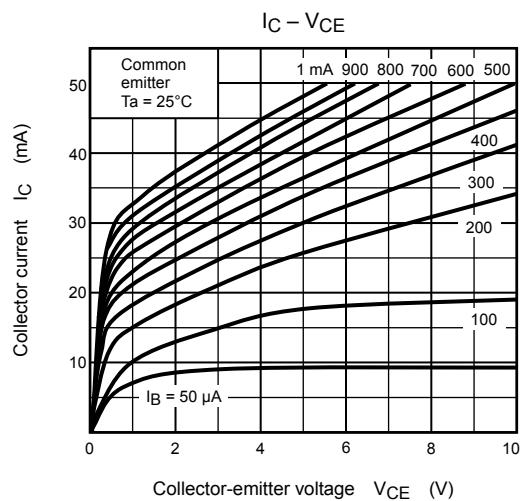


Note2: A line under a Lot No. identifies the indication of product Labels.

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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