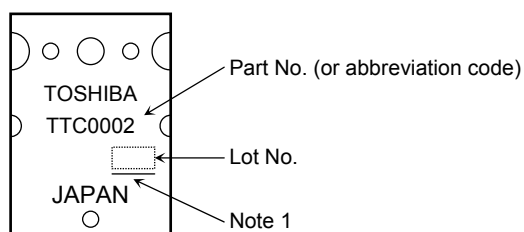


Electrical Characteristics (Tc = 25°C)

Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Collector cut-off current	I_{CBO}	$V_{CB} = 160\text{ V}, I_E = 0$	—	—	1.0	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 5\text{ V}, I_C = 0$	—	—	1.0	μA
Collector-emitter breakdown voltage	$V_{(BR) CEO}$	$I_C = 50\text{ mA}, I_B = 0$	160	—	—	V
DC current gain	$h_{FE} (1)$	$V_{CE} = 5\text{ V}, I_C = 1\text{ A}$	80	—	160	
	$h_{FE} (2)$	$V_{CE} = 5\text{ V}, I_C = 9\text{ A}$	35	—	—	
Collector-emitter saturation voltage	$V_{CE (sat)}$	$I_C = 9\text{ A}, I_B = 0.9\text{ A}$	—	—	2.0	V
Base-emitter voltage	V_{BE}	$V_{CE} = 5\text{ V}, I_C = 9\text{ A}$	—	—	1.5	V
Transition frequency	f_T	$V_{CE} = 5\text{ V}, I_C = 1\text{ A}$	—	30	—	MHz
Collector output capacitance	C_{ob}	$V_{CB} = 10\text{ V}, I_E = 0, f = 1\text{ MHz}$	—	210	—	pF

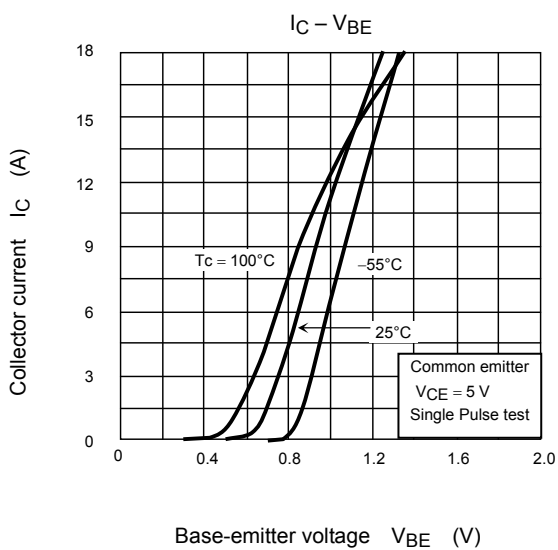
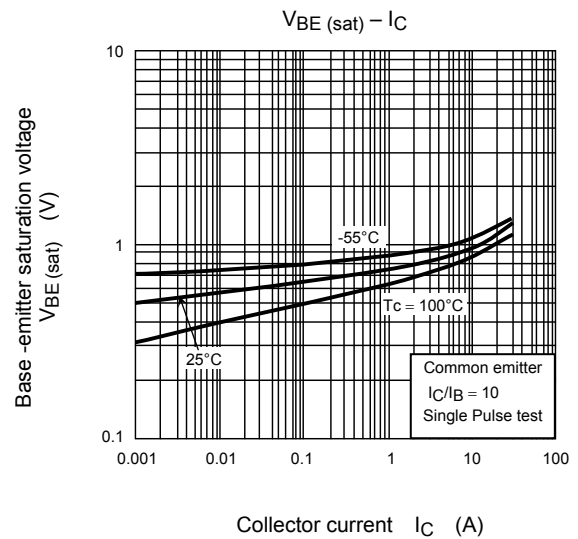
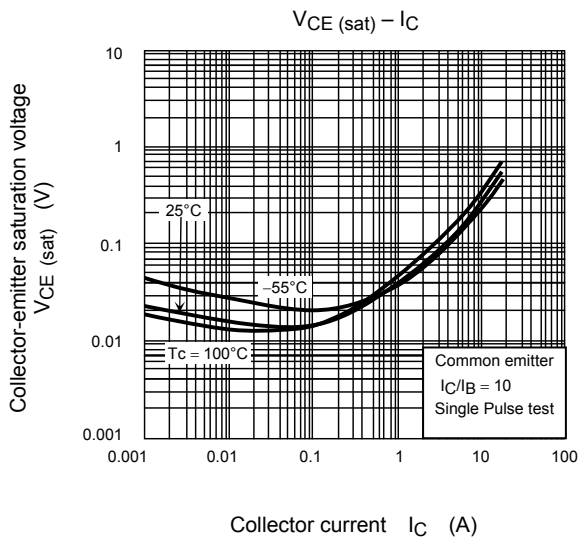
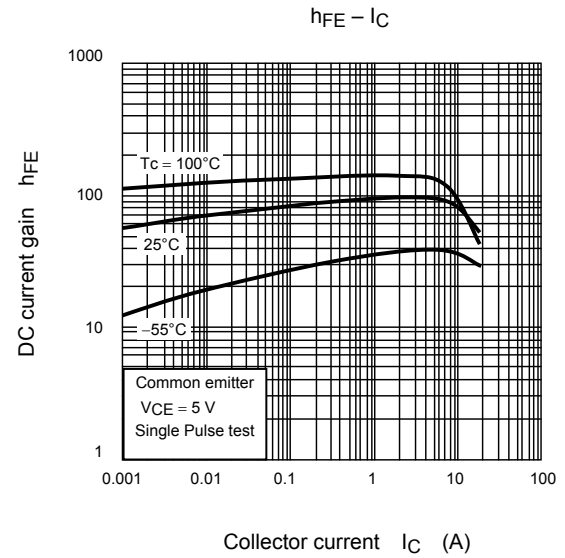
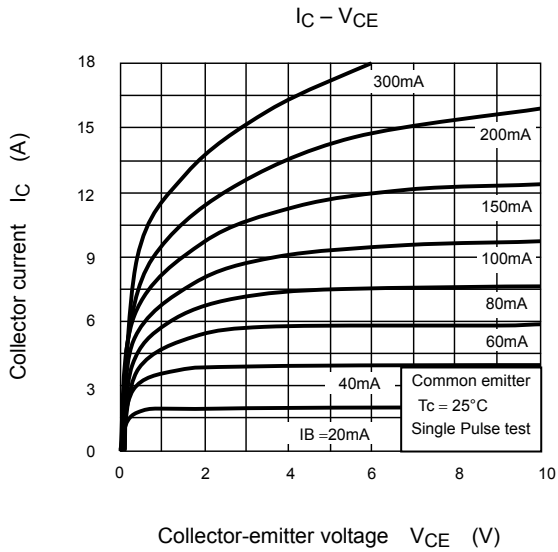
Marking



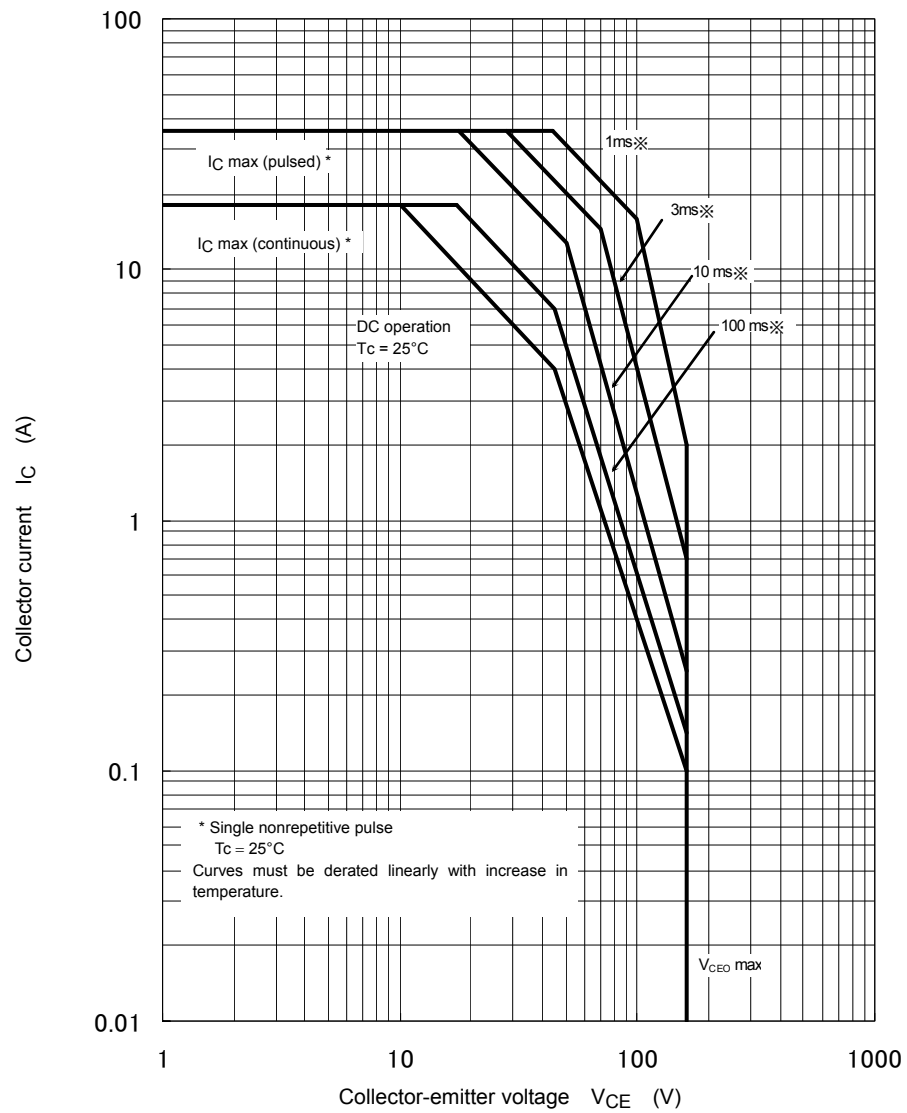
Note 1: Marking for identifying the indication of product Labels
 [[G]]/RoHS COMPATIBLE or [[G]]/RoHS [[Pb]]

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.



Safe Operating Area



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