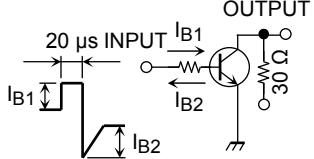
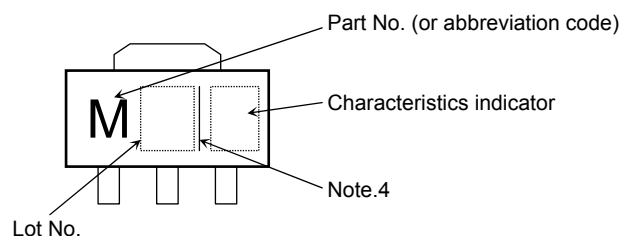


Electrical Characteristics (Ta = 25°C)

Characteristics		Symbol	Test Condition	Min	Typ.	Max	Unit
Collector cut-off current		I_{CBO}	$V_{CB} = 50\text{ V}, I_E = 0$	—	—	0.1	μA
Emitter cut-off current		I_{EBO}	$V_{EB} = 5\text{ V}, I_C = 0$	—	—	0.1	μA
Collector-emitter breakdown voltage		$V_{(BR) CEO}$	$I_C = 10\text{ mA}, I_B = 0$	50	—	—	V
DC current gain	$h_{FE (1)}$ (Note 3)		$V_{CE} = 2\text{ V}, I_C = 0.5\text{ A}$	70	—	240	—
	$h_{FE (2)}$		$V_{CE} = 2\text{ V}, I_C = 2.0\text{ A}$	20	—	—	
Collector-emitter saturation voltage		$V_{CE (sat)}$	$I_C = 1\text{ A}, I_B = 0.05\text{ A}$	—	—	0.5	V
Base-emitter saturation voltage		$V_{BE (sat)}$	$I_C = 1\text{ A}, I_B = 0.05\text{ A}$	—	—	1.2	V
Transition frequency		f_T	$V_{CE} = 2\text{ V}, I_C = 0.5\text{ A}$	—	120	—	MHz
Collector output capacitance		C_{ob}	$V_{CB} = 10\text{ V}, I_E = 0, f = 1\text{ MHz}$	—	30	—	pF
Switching time	Turn-on time	t_{on}	 <p>$I_{B1} = -I_{B2} = 0.05\text{ A}$, DUTY CYCLE $\leq 1\%$</p>	—	0.1	—	μs
	Storage time	t_{stg}		—	1.0	—	
	Fall time	t_f		—	0.1	—	

Note 3: $h_{FE (1)}$ classification O: 70 to 140, Y: 120 to 240

Marking



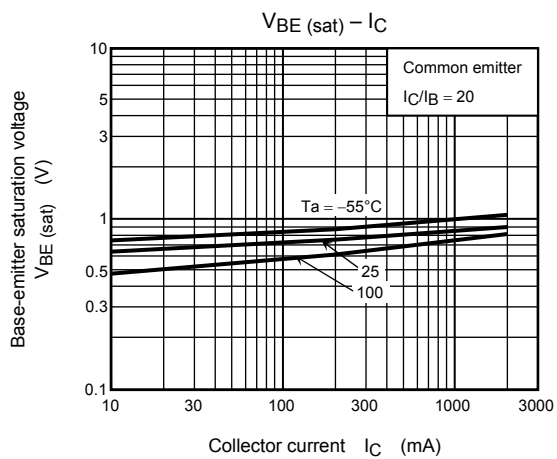
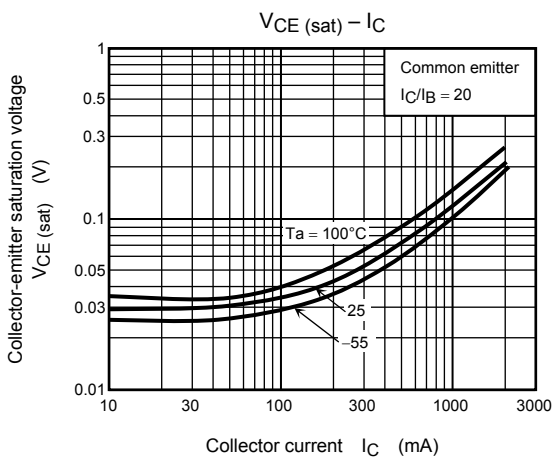
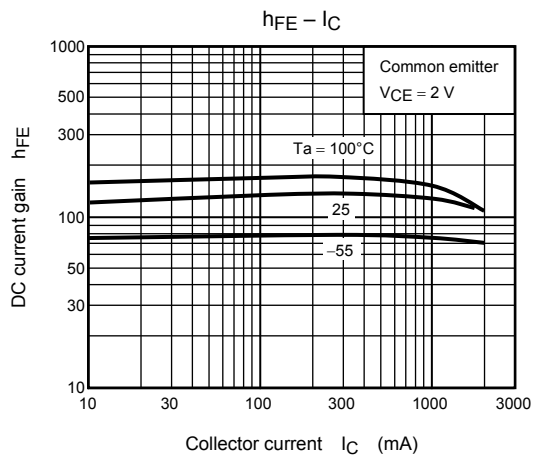
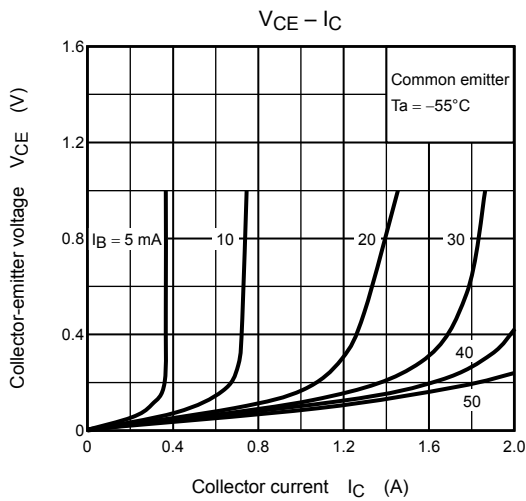
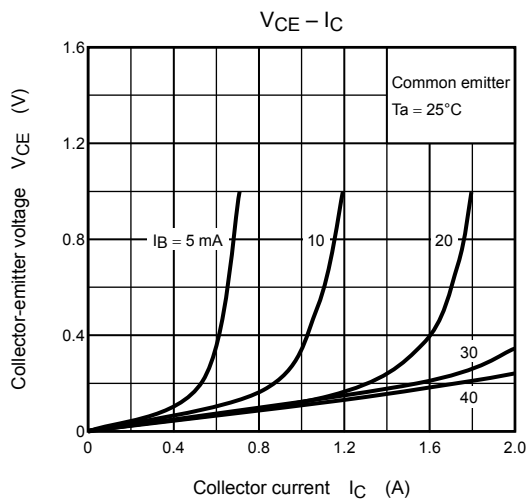
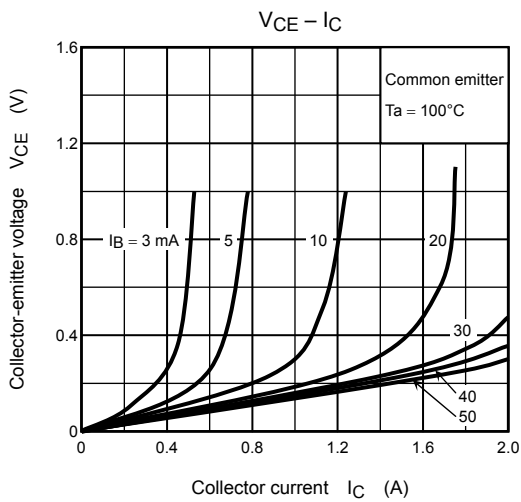
Note 4 : A line beside a Lot No. identifies the indication of product Labels.

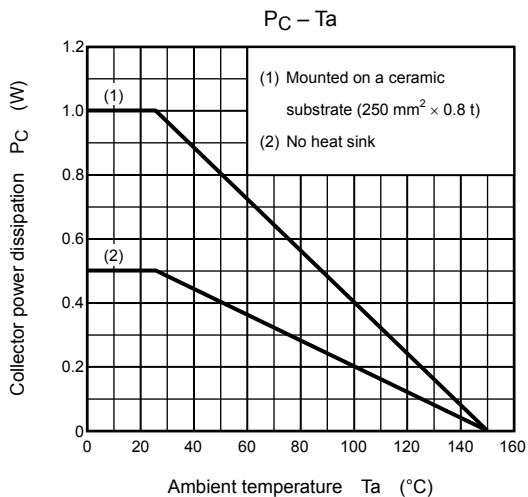
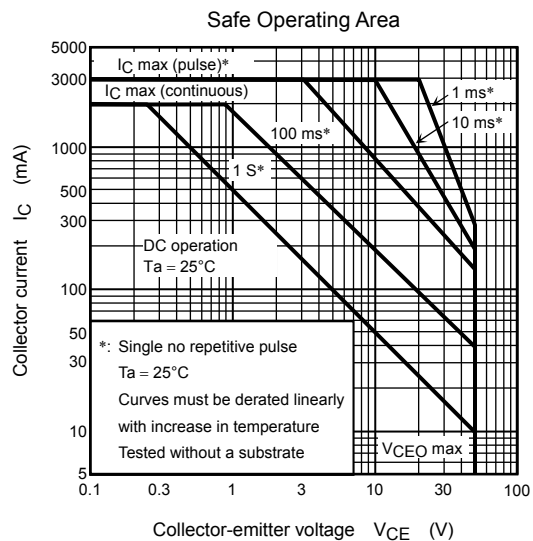
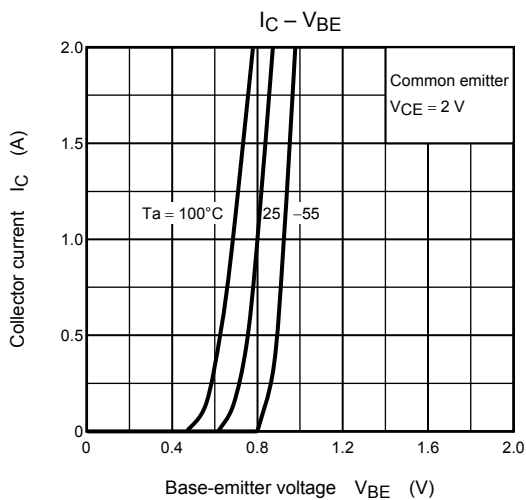
Without a line : $[[Pb]]/INCLUDES > MCV$

With a line : $[[G]]/RoHS COMPATIBLE$ 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 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment.





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