

TOSHIBA Transistor Silicon Epitaxial Planar Type

2SC4203

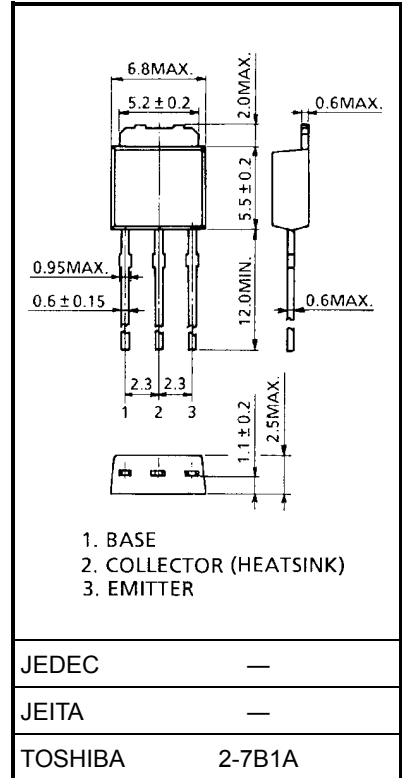
Video Output for High Definition VDT
High Speed Switching Applications

- High transition frequency: $f_T = 400 \text{ MHz (typ.)}$
($V_{CE} = 10 \text{ V, } I_C = 70 \text{ mA}$)
- Low output capacitance: $C_{ob} < 5 \text{ pF (max)}$ ($V_{CB} = 30 \text{ V}$)
- High voltage: $V_{CEO} = 150 \text{ V}$
- High power dissipation: $P_C = 10 \text{ W}$

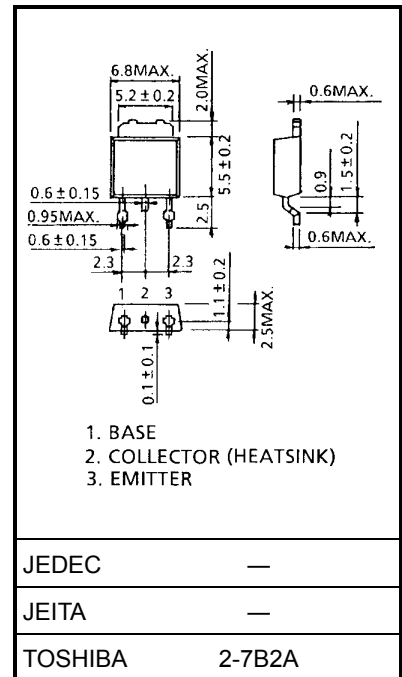
Maximum Ratings ($T_a = 25^\circ\text{C}$)

Characteristics		Symbol	Rating	Unit
Collector-base voltage		V_{CBO}	180	V
Collector-emitter voltage		V_{CEO}	150	V
Emitter-base voltage		V_{EBO}	5	V
Collector current (DC)		I_C	0.3	A
Collector current (pulse)		I_{CP}	0.5	A
Base current		I_B	0.2	A
Power dissipation	$T_a = 25^\circ\text{C}$	P_C	1.0	W
	$T_c = 25^\circ\text{C}$		10	
Junction temperature		T_j	150	$^\circ\text{C}$
Storage temperature range		T_{stg}	-55 to 150	$^\circ\text{C}$

Unit: mm



Weight: 0.36 g (typ.)

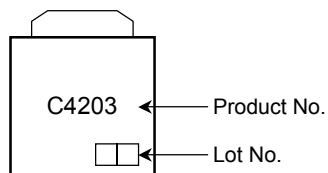


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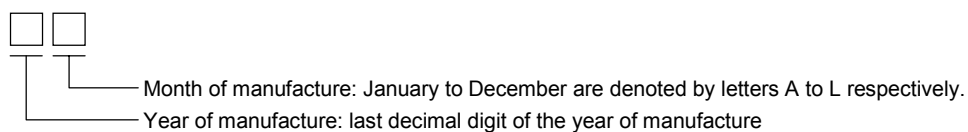
Electrical Characteristics (Ta = 25°C)

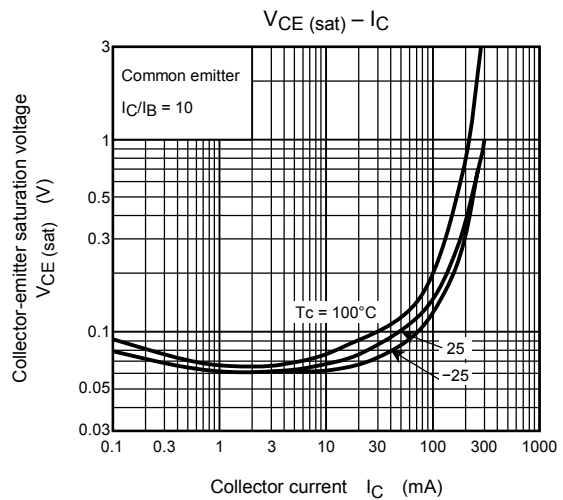
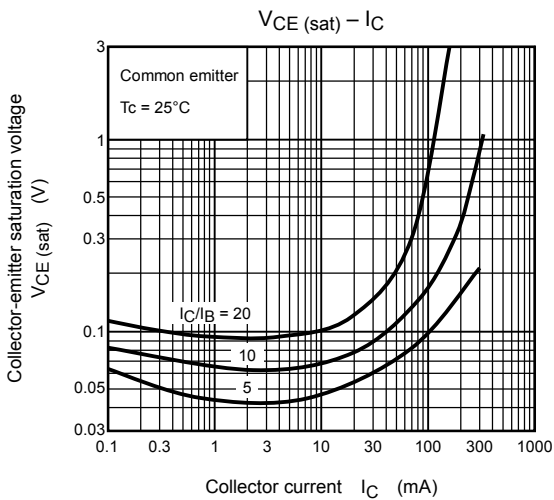
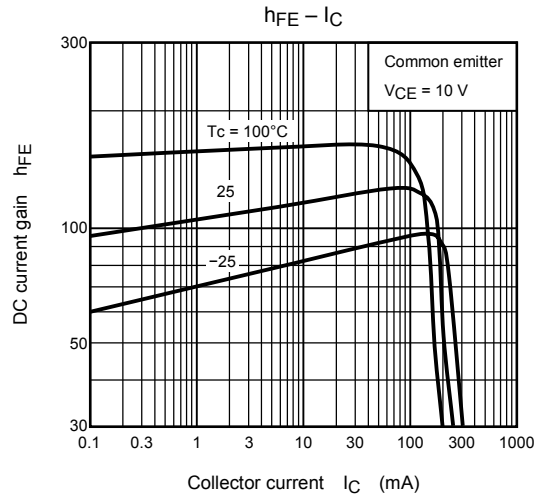
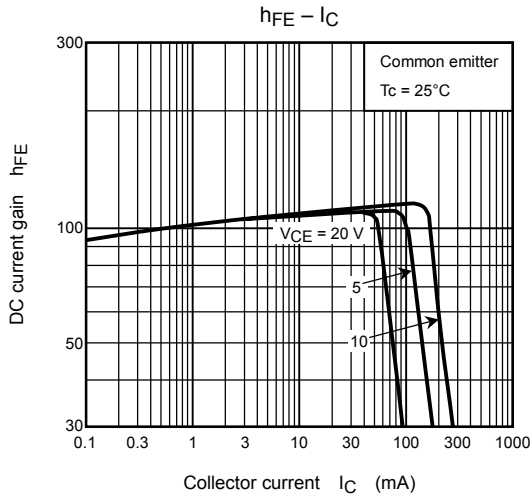
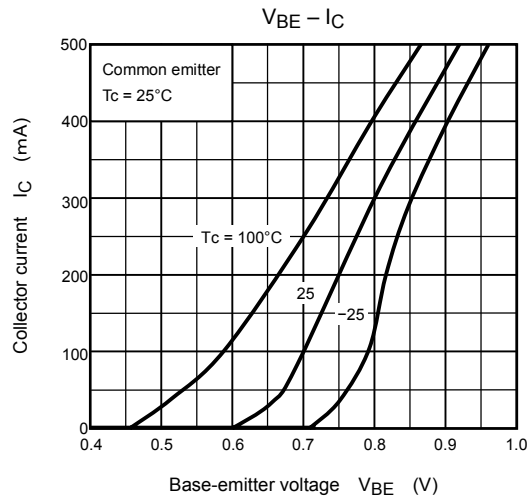
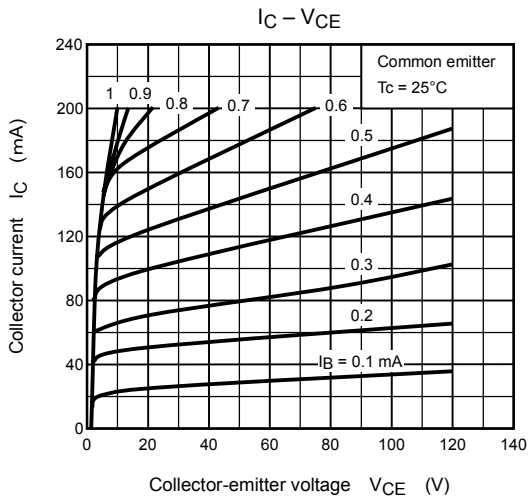
Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Collector cut-off current	I_{CBO}	$V_{CB} = 150\text{ V}, I_E = 0$	—	—	10	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 5\text{ V}, I_C = 0$	—	—	10	μA
Collector-emitter breakdown voltage	$V_{(BR) CEO}$	$I_C = 1\text{ mA}, I_B = 0$	150	—	—	V
DC current gain	$h_{FE (1)}$	$V_{CE} = 10\text{ V}, I_C = 50\text{ mA}$	40	—	240	
	$h_{FE (2)}$	$V_{CE} = 10\text{ V}, I_C = 200\text{ mA}$	20	—	—	
Collector-emitter saturation voltage	$V_{CE (sat)}$	$I_C = 200\text{ mA}, I_B = 20\text{ mA}$	—	—	2.0	V
Base-emitter saturation voltage	$V_{BE (sat)}$	$I_C = 200\text{ mA}, I_B = 20\text{ mA}$	—	—	1.5	V
Transition frequency	f_T	$V_{CE} = 10\text{ V}, I_C = 70\text{ mA}$	300	400	—	MHz
Collector output capacitance	C_{ob}	$V_{CB} = 30\text{ V}, f = 1\text{ MHz}, I_E = 0$	—	4.0	5.0	pF

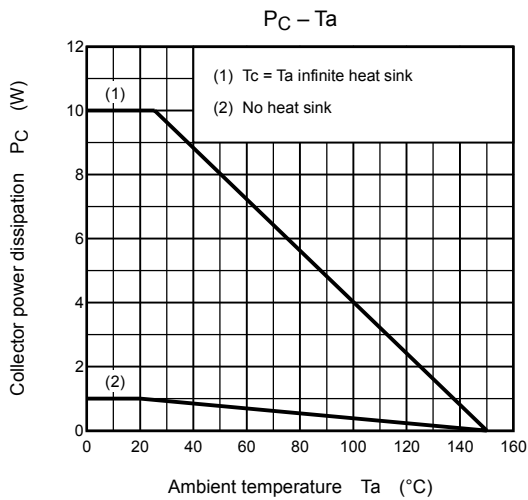
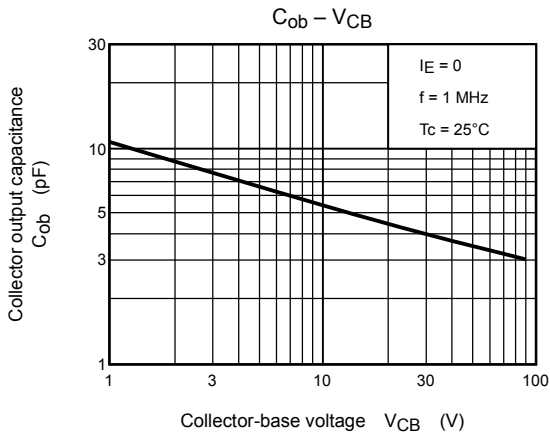
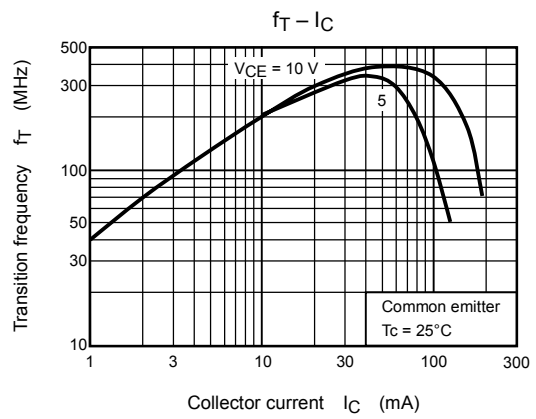
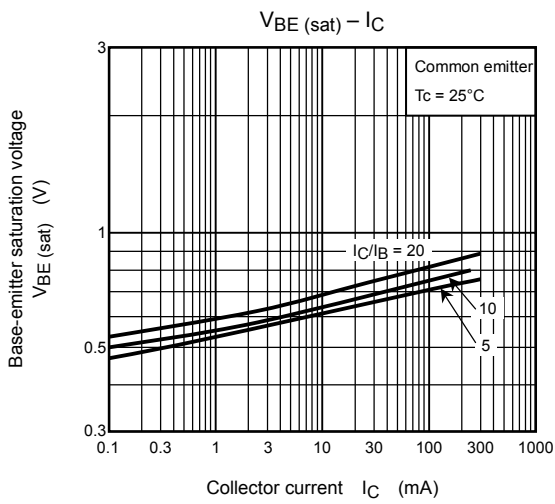
Marking



Explanation of Lot No.







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