查询2SC4203供应商 捷多邦，专业PCB打样工厂，24小时加急出货

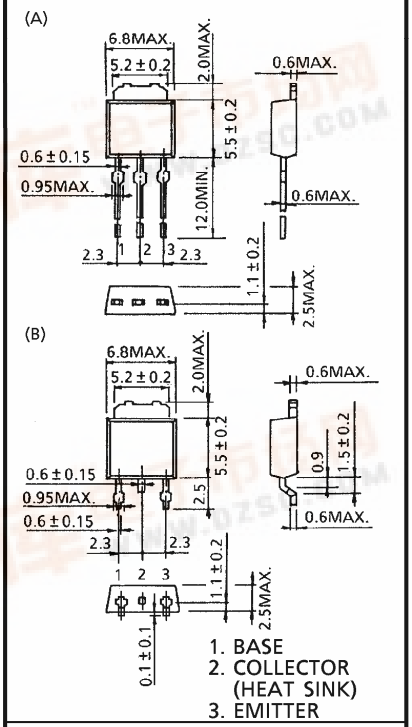
TOSHIBA TRANSISTOR SILICON EPITAXIAL PLANAR TYPE

2SC4203

VIDEO OUTPUT FOR HIGH DEFINITION VDT

HIGH SPEED SWITCHING APPLICATIONS

Unit in mm



JEDEC	—
EIAJ	—
TOSHIBA	(A)2-7B1A (B)2-7B2A

- High Transition Frequency : f_T = 400 MHz (Typ.) (V_{CE} = 10 V, I_C = 70 mA)
- Low Output Capacitance : C_{ob} = 5 pF (Max.) (V_{CB} = 30 V)
- High Voltage : V_{CEO} = 150 V
- High Power Dissipation : P_C = 10 W

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC		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
	Pulse	I_{CP}	0.5	
Base Current (DC)		I_B	0.2	A
Power Dissipation	Tc = 25°C	P_C	10	W
	Ta = 25°C		1.0	
Junction Temperature		T_j	150	°C
Storage Temperature Range		T_{stg}	−55~150	°C

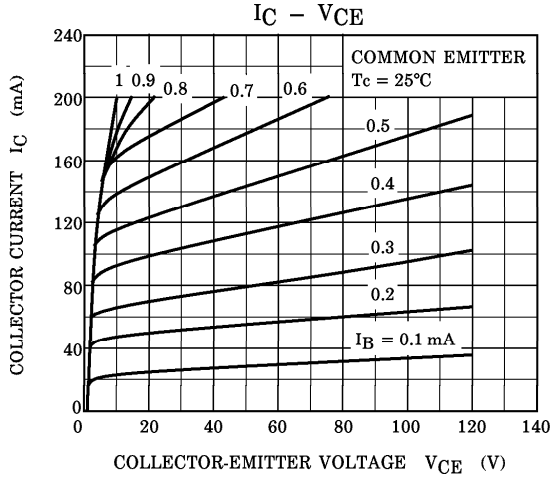
ELECTRICAL CHARACTERISTICS (Ta = 25°C)

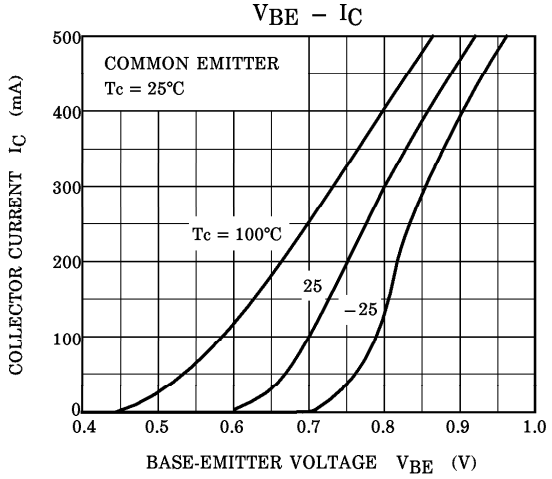
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	V_{CB} = 150 V, I_E = 0	—	—	10	μA
Emitter Cut-off Current	I_{EBO}	V_{EB} = 5 V, I_C = 0	—	—	10	μA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C = 1 mA, I_B = 0	150	—	—	V
DC Current Gain	h_{FE} (1)	V_{CE} = 10 V, I_C = 50 mA	40	—	240	
	h_{FE} (2)	V_{CE} = 10 V, I_C = 200 mA	20	—	—	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C = 200 mA, I_B = 20 mA	—	—	2.0	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	I_C = 200 mA, I_B = 20 mA	—	—	1.5	V
Transition Frequency	f_T	V_{CE} = 10 V, I_C = 70 mA	300	400	—	MHz
Collector Output Capacitance	C_{ob}	V_{CB} = 30 V, f = 1 MHz, I_E = 0	—	4.0	5.0	pF

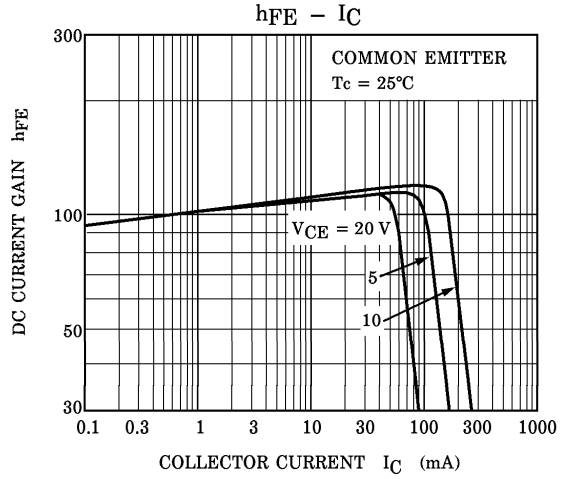
961001EAA1

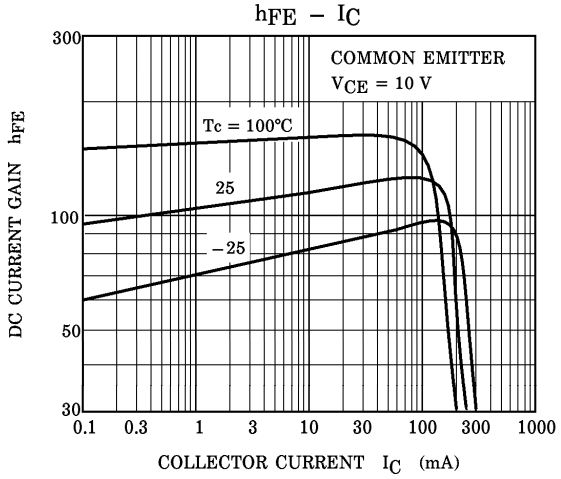
● TOSHIBA is continually working to improve the quality and the reliability of its products. Nevertheless, semiconductor devices in general can malfunction or fail due to their inherent electrical sensitivity and vulnerability to physical stress. It is the responsibility of the buyer, when utilizing TOSHIBA products, to observe standards of safety, and to avoid situations in which a malfunction or failure of a TOSHIBA product could cause loss of human life, bodily injury or damage to property. In developing your designs, please ensure that TOSHIBA products are used within specified operating ranges as set forth in the most recent products specifications. Also, please keep in mind the precautions and conditions set forth in the TOSHIBA Semiconductor Reliability Handbook.
● The information contained herein is presented only as a guide for the applications of our products. No responsibility is assumed by TOSHIBA CORPORATION for any infringements of intellectual property or other rights of the third parties which may result from its use. No license is granted by implication or otherwise under any intellectual property or other rights of TOSHIBA CORPORATION or others.
● The information contained herein is subject to change without notice.

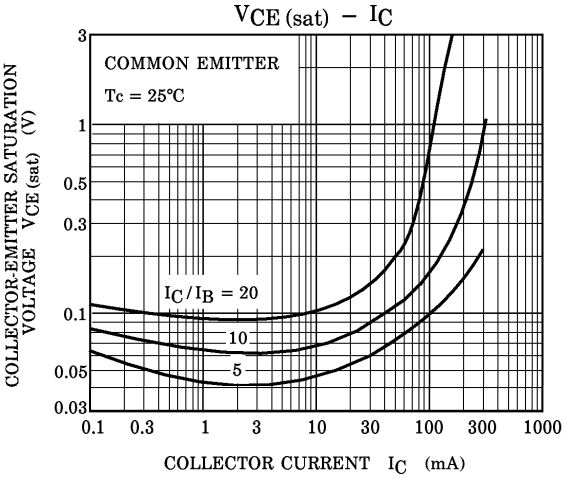
找PDF 鲲一下 pdf.dzsc.com

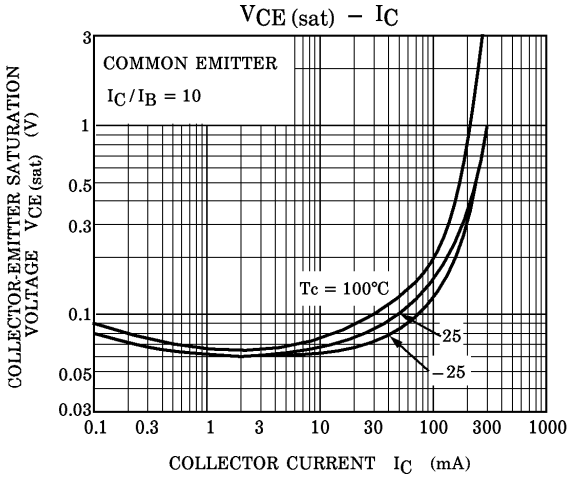

IC – VCE
COMMON EMITTER
Tc = 25°C
1 0.9 0.8 0.7 0.6
0.5
0.4
0.3
0.2
IB = 0.1 mA
COLLECTOR CURRENT IC (mA)
COLLECTOR-EMITTER VOLTAGE VCE (V)

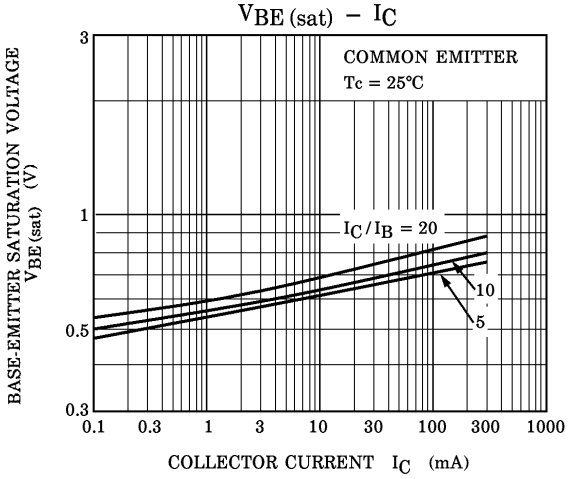

VBE – IC
COMMON EMITTER
Tc = 25°C
Tc = 100°C
25
−25
COLLECTOR CURRENT IC (mA)
BASE-EMITTER VOLTAGE VBE (V)

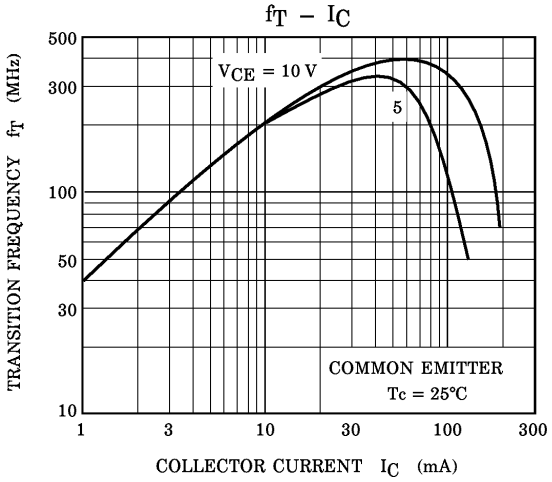

hFE – IC
COMMON EMITTER
Tc = 25°C
VCE = 20 V
5
10
DC CURRENT GAIN hFE
COLLECTOR CURRENT IC (mA)

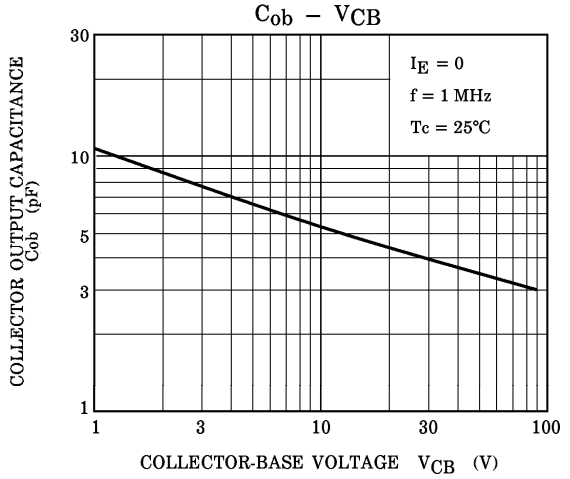

hFE – IC
COMMON EMITTER
VCE = 10 V
Tc = 100°C
25
−25
DC CURRENT GAIN hFE
COLLECTOR CURRENT IC (mA)

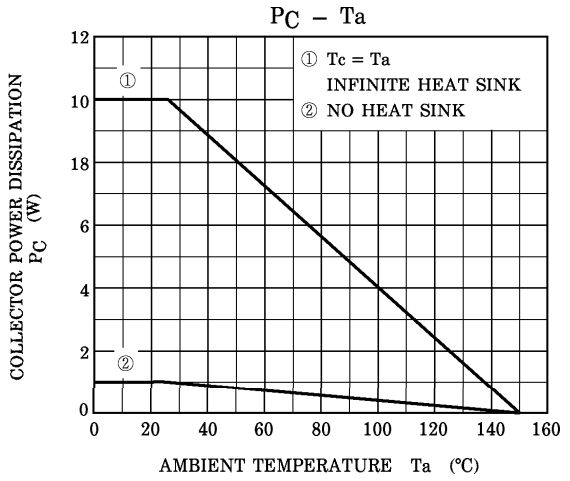

VCE (sat) – IC
COMMON EMITTER
Tc = 25°C
IC / IB = 20
10
5
COLLECTOR-EMITTER SATURATION VOLTAGE VCE (sat) (V)
COLLECTOR CURRENT IC (mA)


VCE (sat) – IC
COMMON EMITTER
IC / IB = 10
Tc = 100°C
25
−25
COLLECTOR-EMITTER SATURATION VOLTAGE VCE (sat) (V)
COLLECTOR CURRENT IC (mA)


VBE (sat) – IC
COMMON EMITTER
Tc = 25°C
IC / IB = 20
10
5
BASE-EMITTER SATURATION VOLTAGE VBE (sat) (V)
COLLECTOR CURRENT IC (mA)
3
1
0.5
0.3
0.1
0.3
1
3
10
30
100
300
1000


fT – IC
VCE = 10 V
5
COMMON EMITTER
Tc = 25°C
TRANSITION FREQUENCY fT (MHz)
COLLECTOR CURRENT IC (mA)
500
300
100
50
30
10
1
3
10
30
100
300


Cob – VCB
IE = 0
f = 1 MHz
Tc = 25°C
COLLECTOR OUTPUT CAPACITANCE Cob (pF)
COLLECTOR-BASE VOLTAGE VCB (V)
30
10
5
3
1
1
3
10
30
100


PC – Ta
① Tc = Ta
INFINITE HEAT SINK
② NO HEAT SINK
①
②
COLLECTOR POWER DISSIPATION PC (W)
AMBIENT TEMPERATURE Ta (°C)
12
10
18
6
4
2
0
0
20
40
60
80
100
120
140
160