TOSHIBA TRANSISTOR SILICON NPN TRIPLE DIFFUSED TYPE (PCT PROCESS)

2SC5027

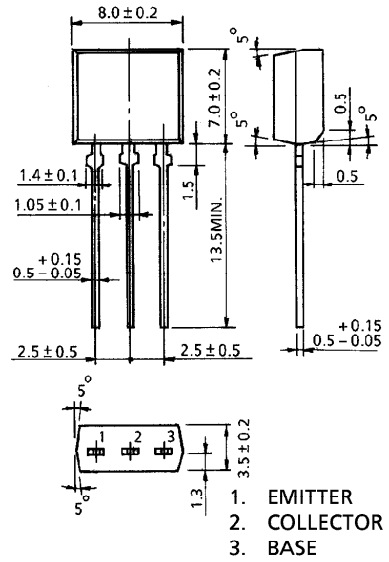
HIGH VOLTAGE SWITCHING AND AMPLIFIER APPLICATIONS

COLOR TV HORIZONTAL DRIVER APPLICATIONS

COLOR TV CHROMA OUTPUT APPLICATIONS

- High Voltage : $V_{CEO}=300V$
- Small Collector Output Capacitance : $C_{ob}=3.0pF$ (Typ.)

Unit in mm



JEDEC	—
EIAJ	—
TOSHIBA	2-8M1A

Weight : 0.55g (Typ.)

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	300	V
Collector-Emitter Voltage	V_{CEO}	300	V
Emitter-Base Voltage	V_{EBO}	7	V
Collector Current	I_C	100	mA
Base Current	I_B	50	mA
Collector Power Dissipation	P_C	1.3	W
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}	$V_{CB}=240V$, $I_E=0$	—	—	1.0	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=7V$, $I_C=0$	—	—	1.0	μA
DC Current Gain	h_{FE} (1)	$V_{CE}=10V$, $I_C=4mA$	20	—	—	
	h_{FE} (2)	$V_{CE}=10V$, $I_C=20mA$	30	—	200	
Collector-Emitter Saturation Voltage	V_{CE} (sat)	$I_C=10mA$, $I_B=1mA$	—	—	1.0	V
Base-Emitter Saturation Voltage	V_{BE} (sat)	$I_C=10mA$, $I_B=1mA$	—	—	1.0	V
Transition Frequency	f_T	$V_{CE}=10V$, $I_C=20mA$	50	70	—	MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=20V$, $I_E=0$, f=1MHz	—	3.0	—	pF

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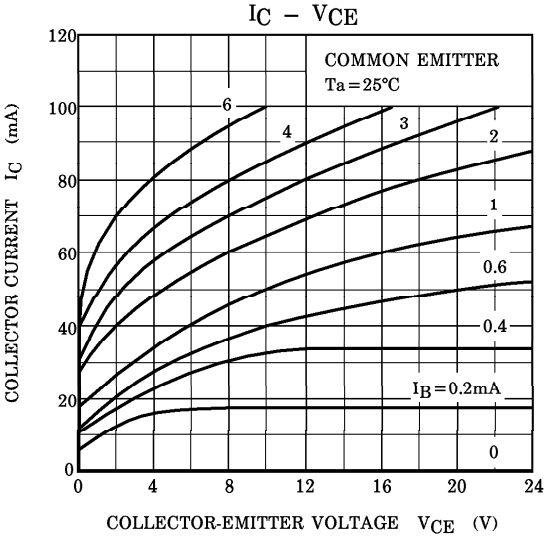
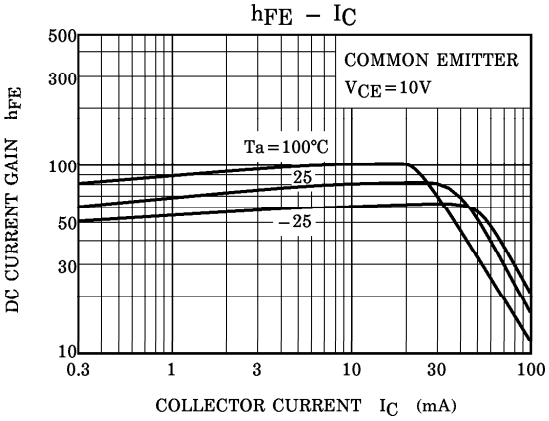
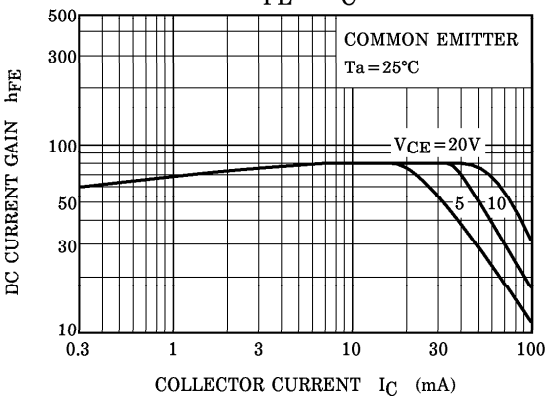
$I_C - V_{CE}$



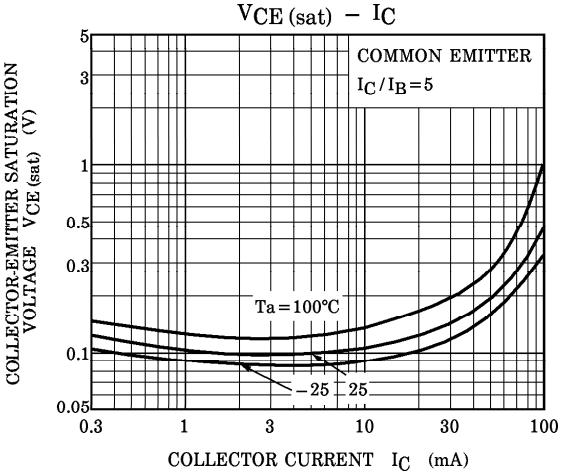
$h_{FE} - I_C$



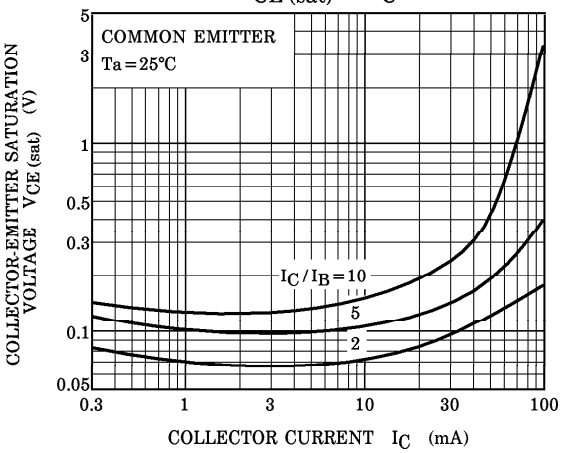
$h_{FE} - I_C$



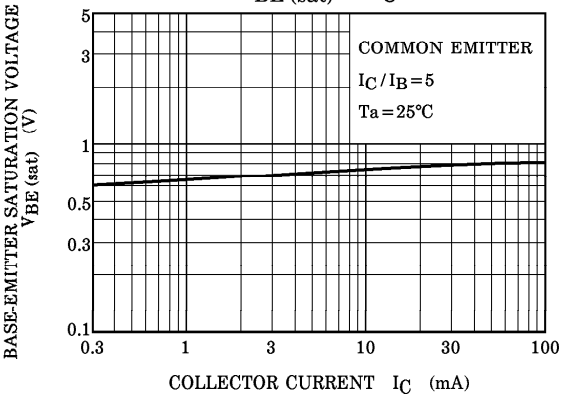
$V_{CE\,(sat)} - I_C$



$V_{CE\,(sat)} - I_C$



$V_{BE\,(sat)} - I_C$



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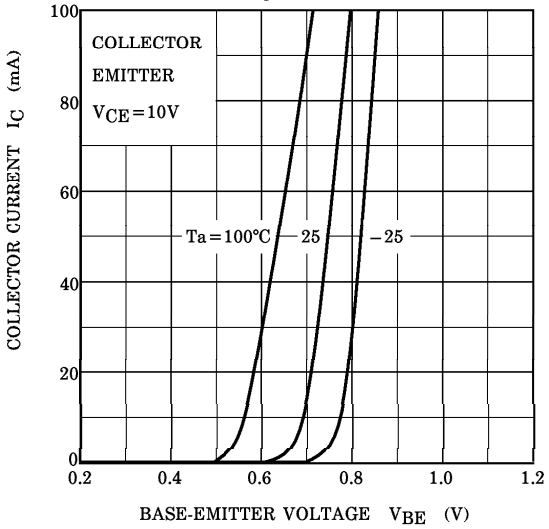
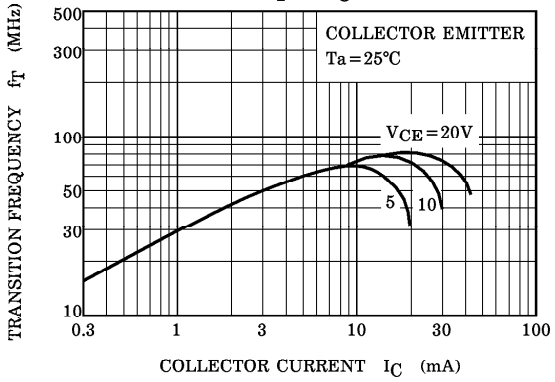
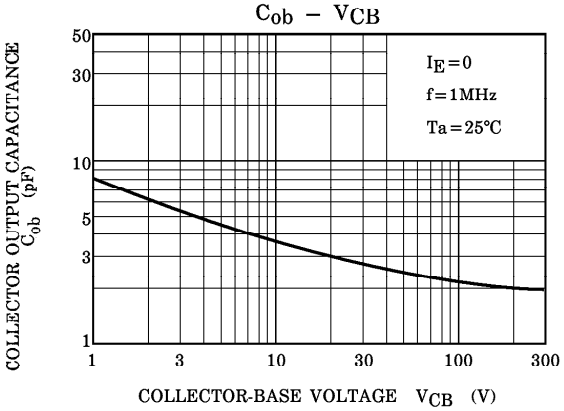
I_C – V_{BE}



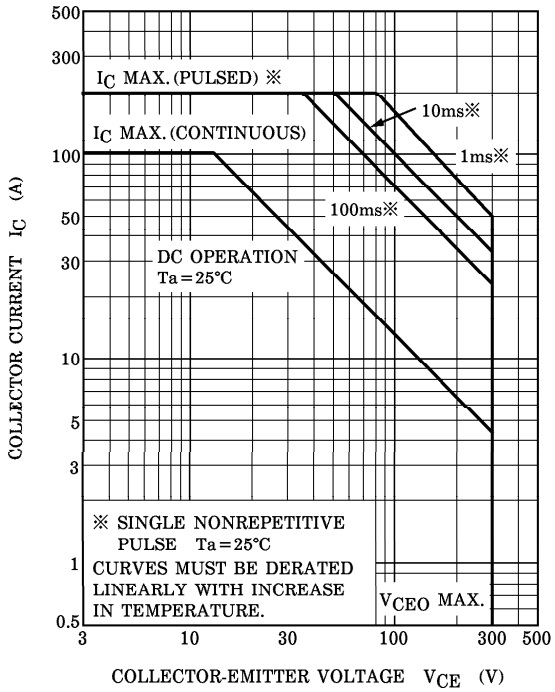
f_T – I_C



C_{ob} – V_{CB}



SAFE OPERATING AREA



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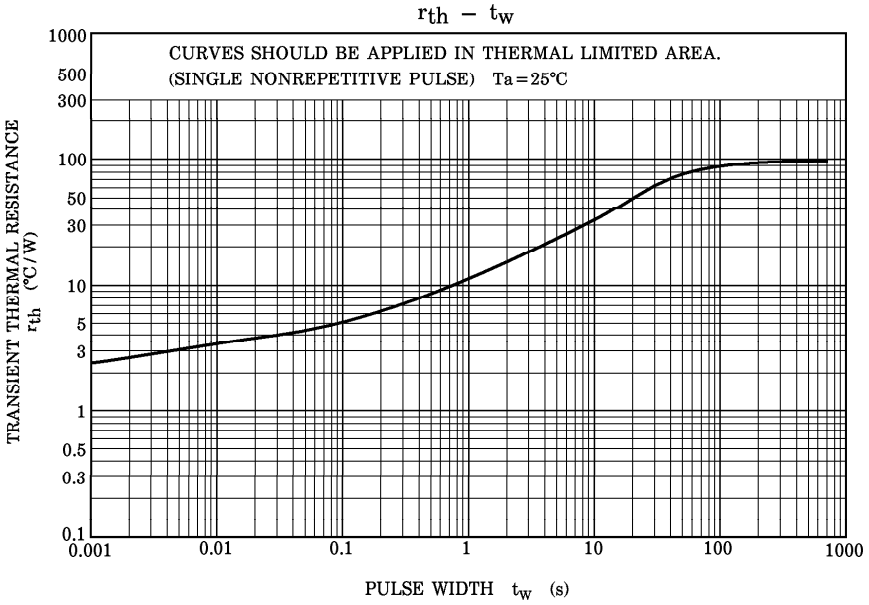

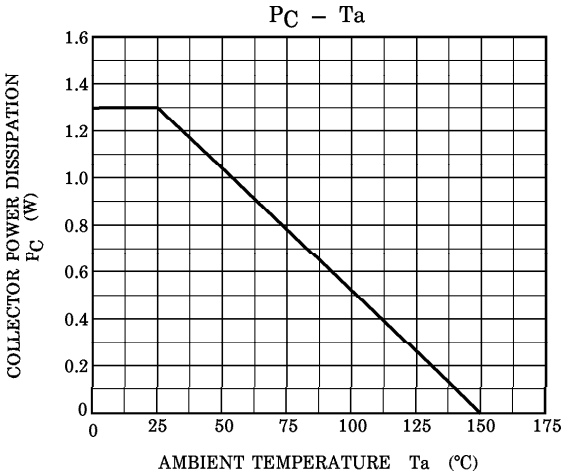

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