

TOSHIBA TRANSISTOR SILICON NPN TRIPLE DIFFUSE TYPE (PCT PROCESS)

2SC5173

HIGH VOLTAGE SWITCHING AND AMPLIFIER APPLICATIONS

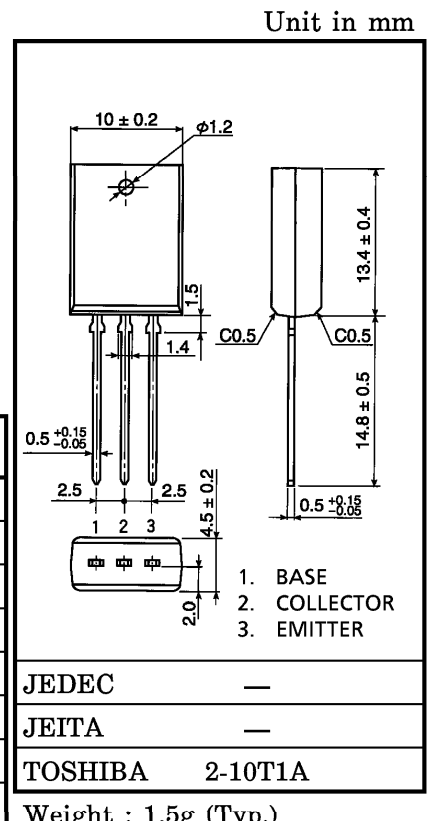
COLOR TV HORIZONTAL DRIVER APPLICATIONS

COLOR TV CHROMA OUTPUT APPLICATIONS

- High Voltage : $V_{(BR)CEO} = 300V$
- Small Collector Output Capacitance : $C_{ob} = 3.0pF$ (Typ.)
- Collector metal (Fin) is fully covered with mold resin.

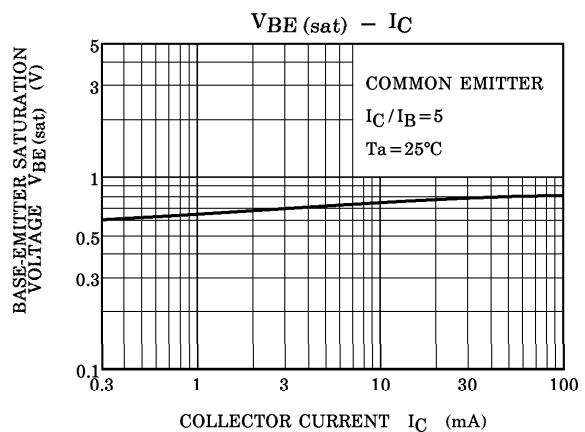
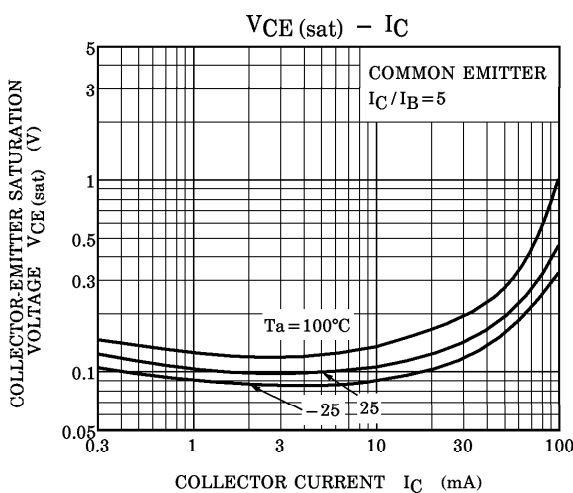
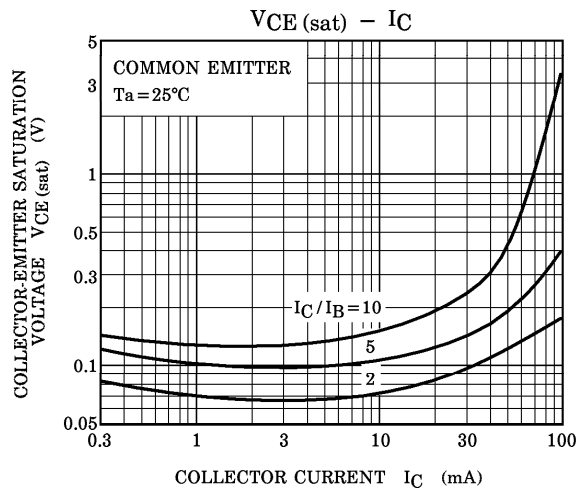
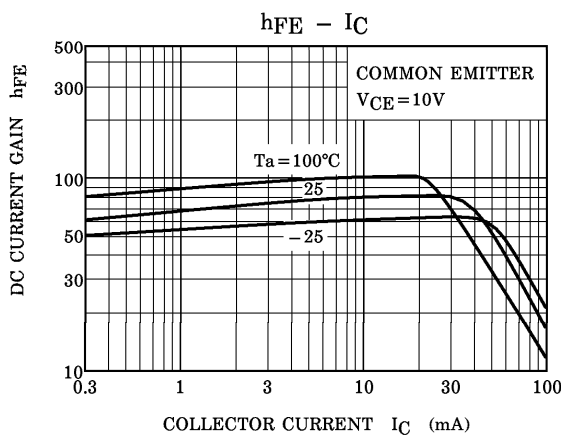
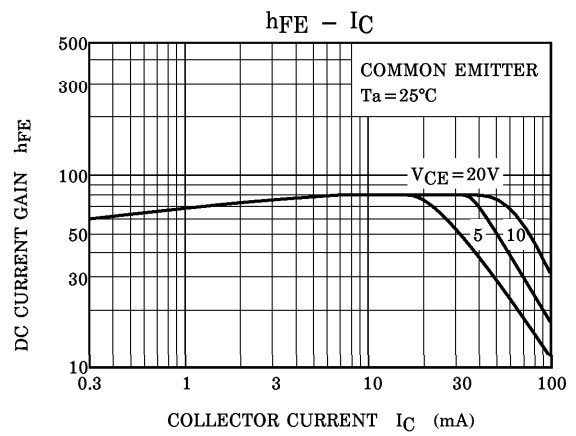
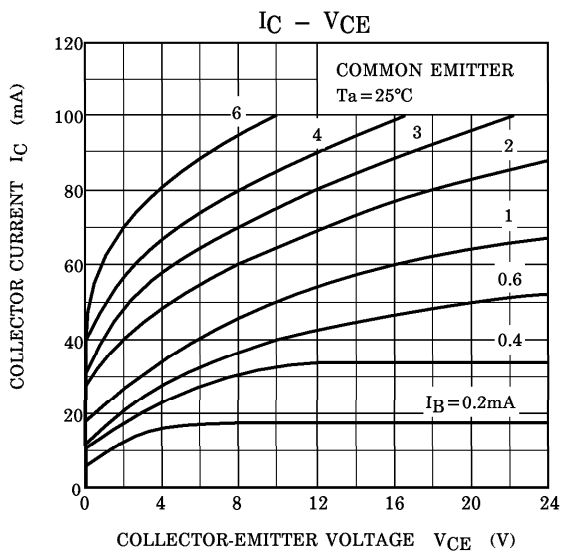
MAXIMUM RATINGS ($T_a = 25^\circ C$)

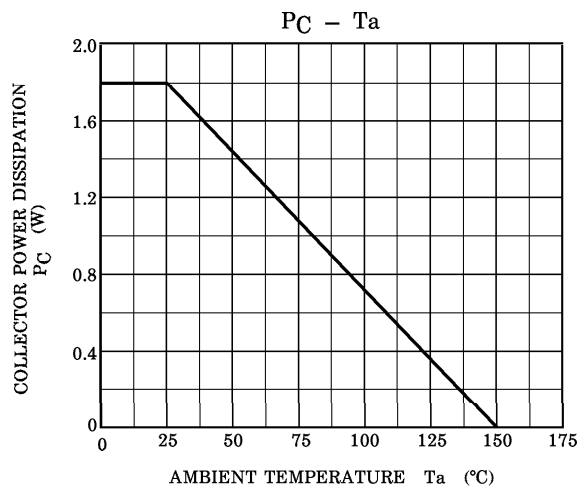
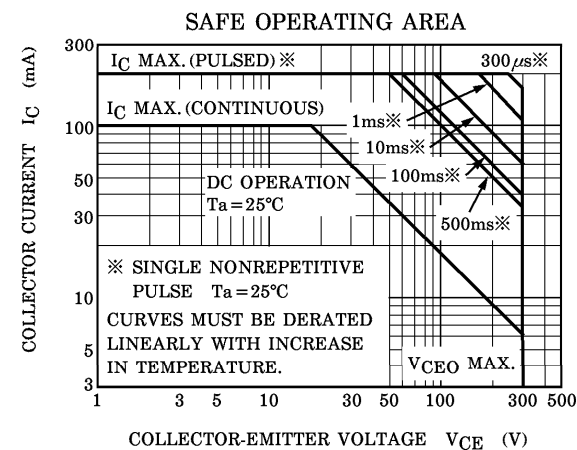
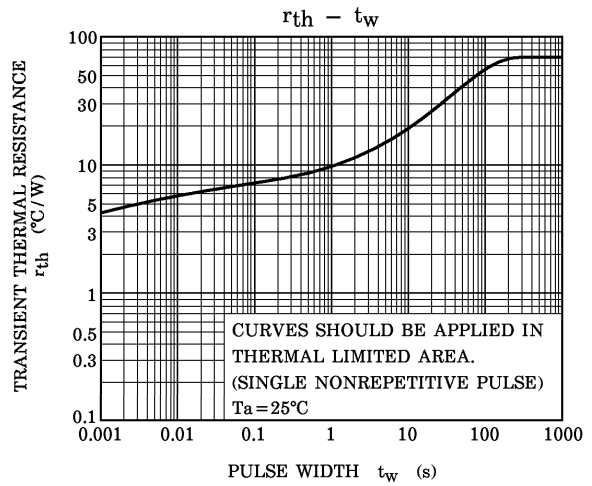
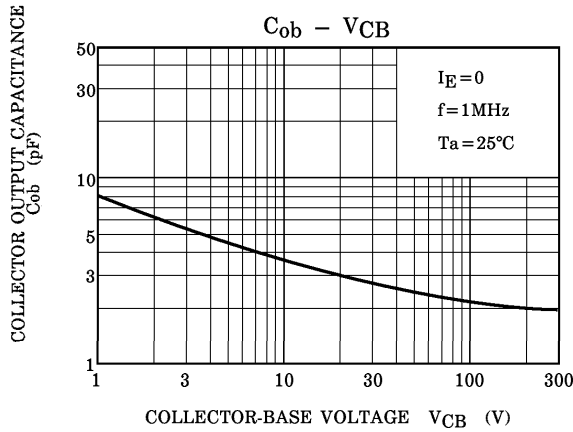
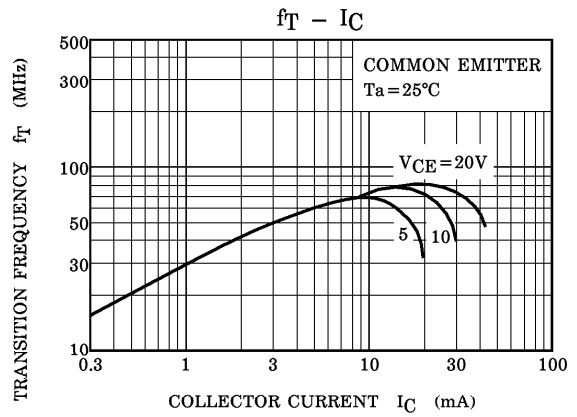
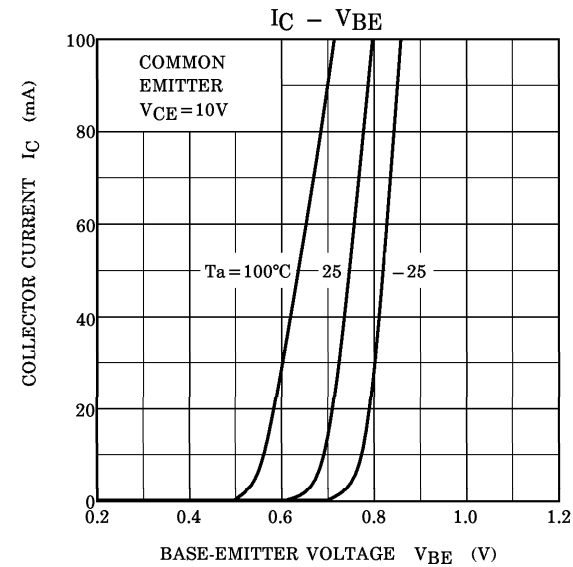
CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	300	V
Collector-Emitter Voltage	V_{CEO}	300	V
Emitter-Base Voltage	V_{EBO}	7	V
Collector Current	I_C	100	mA
Base Current	I_B	50	mA
Collector Power Dissipation	P_C	1.8	W
Junction Temperature	T_j	150	$^\circ C$
Storage Temperature Range	T_{stg}	-55~150	$^\circ C$



ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ C$ Unless otherwise noted.)

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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