

TOSHIBA TRANSISTOR SILICON NPN TRIPLE DIFFUSE TYPE (PCT PROCESS)

# 2SC5173

HIGH VOLTAGE SWITCHING AND AMPLIFIER APPLICATIONS

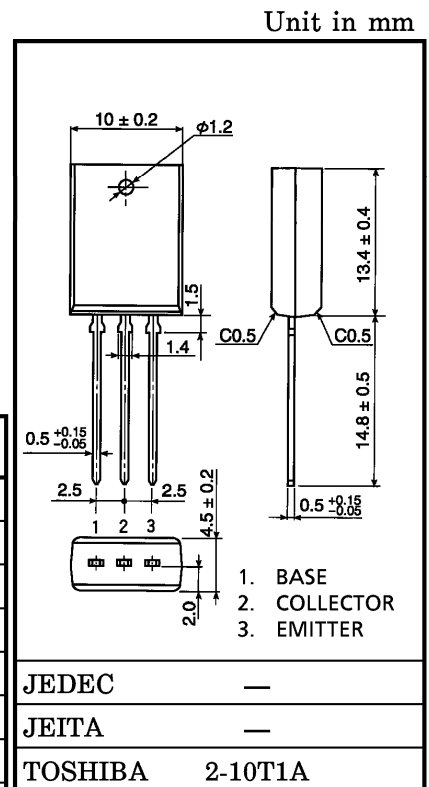
COLOR TV HORIZONTAL DRIVER APPLICATIONS

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.

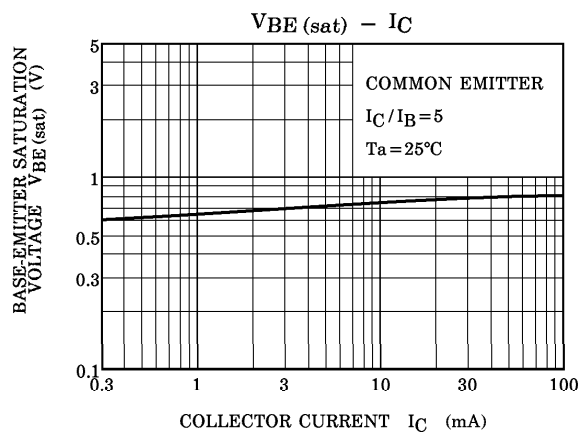
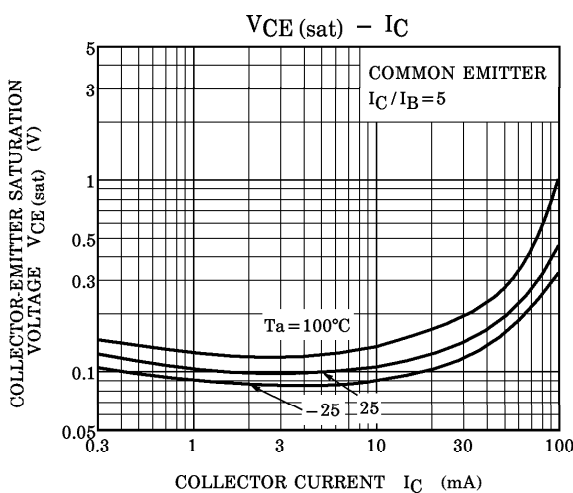
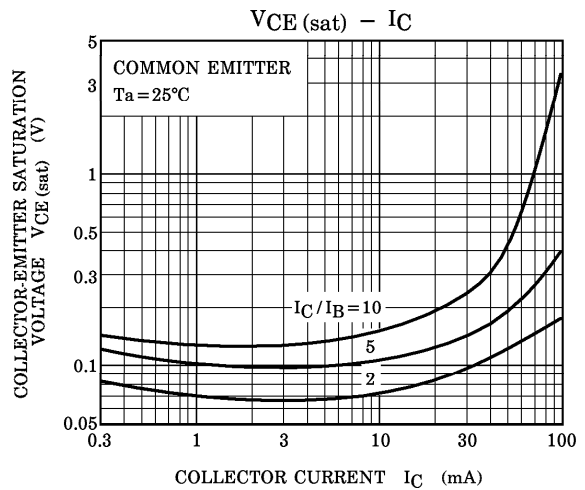
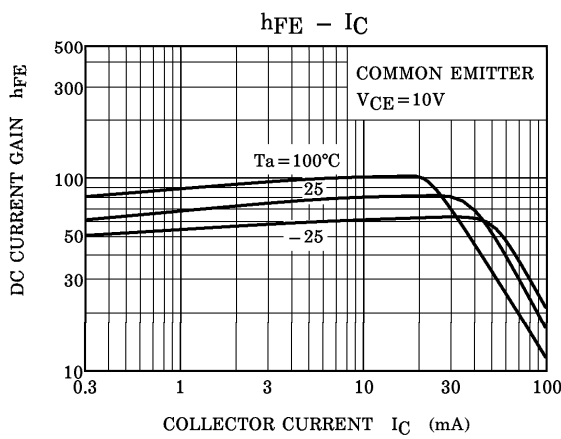
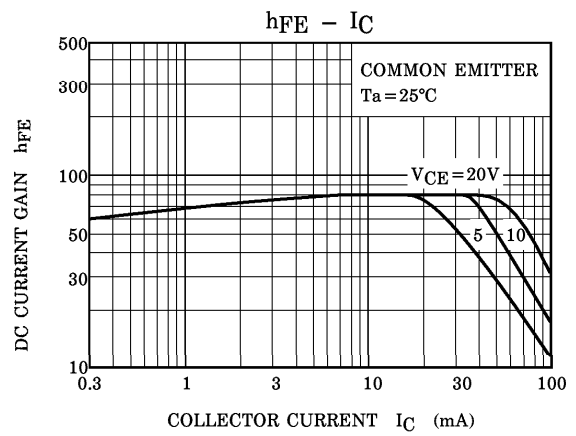
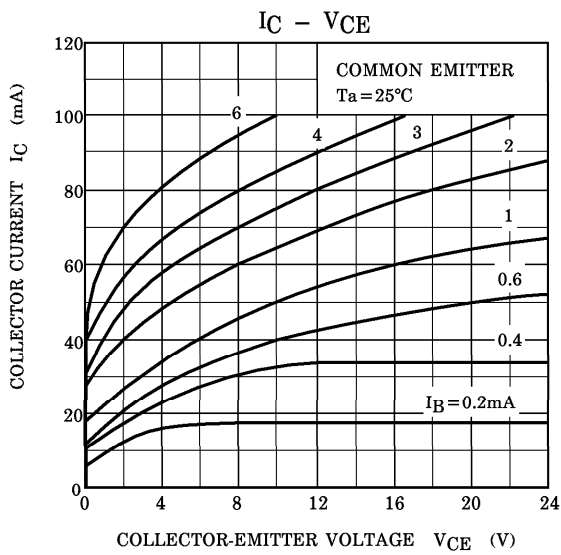
MAXIMUM RATINGS ( $T_a = 25^\circ C$ )

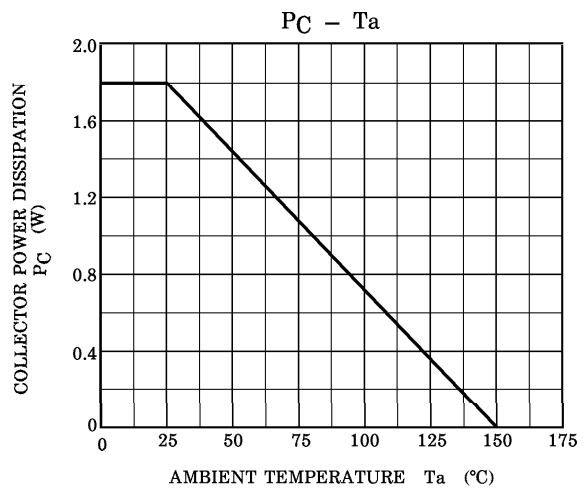
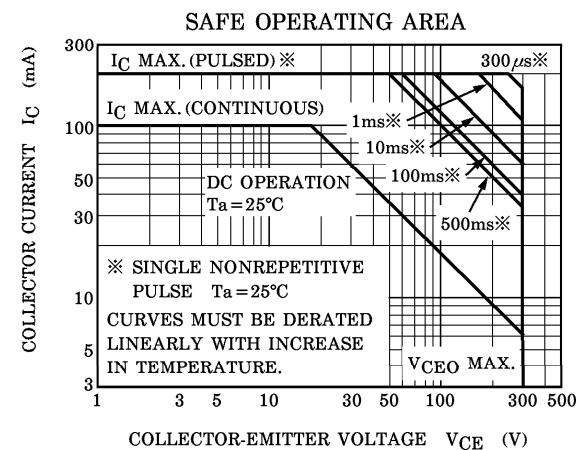
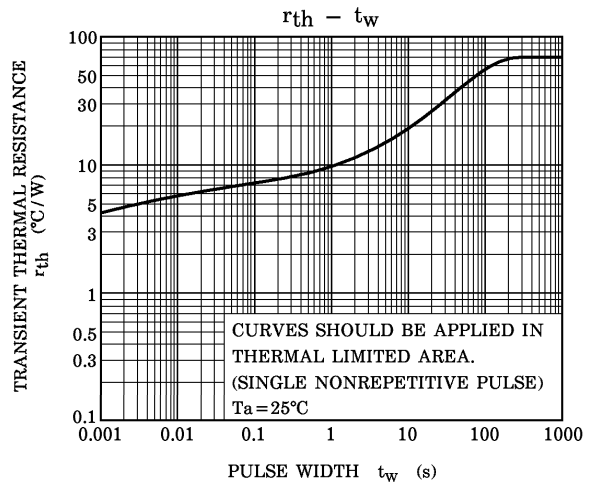
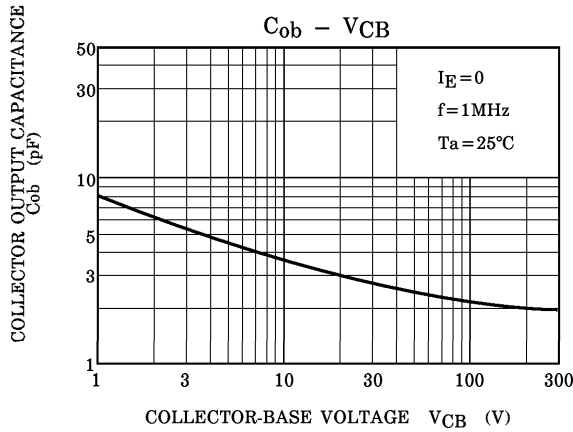
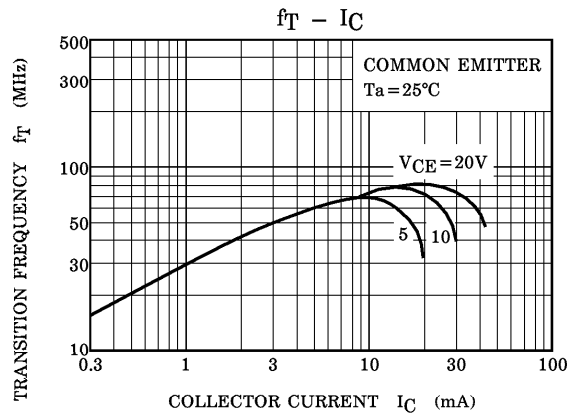
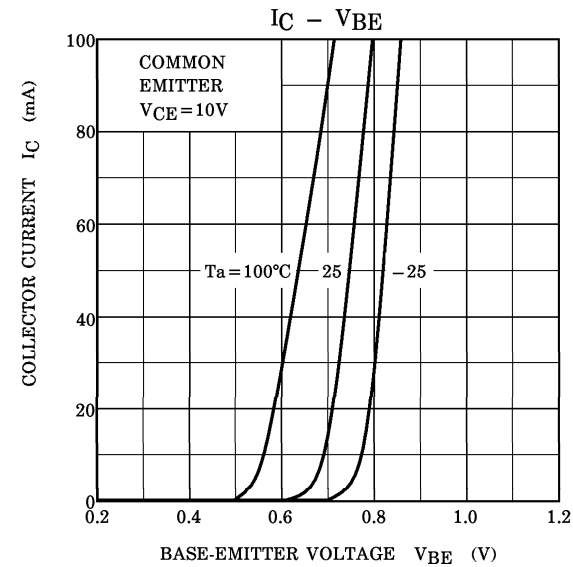
CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	$V_{CBO}$	300	V
Collector-Emitter Voltage	$V_{CEO}$	300	V
Emitter-Base Voltage	$V_{EBO}$	7	V
Collector Current	$I_C$	100	mA
Base Current	$I_B$	50	mA
Collector Power Dissipation	$P_C$	1.8	W
Junction Temperature	$T_j$	150	$^\circ C$
Storage Temperature 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	$\mu A$
Emitter Cut-off Current	$I_{EBO}$	$V_{EB} = 7V, I_C = 0$	—	—	1.0	$\mu A$
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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