

TOSHIBA TRANSISTOR SILICON NPN TRIPLE DIFFUSED MESA TYPE

2SC5404

HORIZONTAL DEFLECTION OUTPUT FOR HIGH RESOLUTION

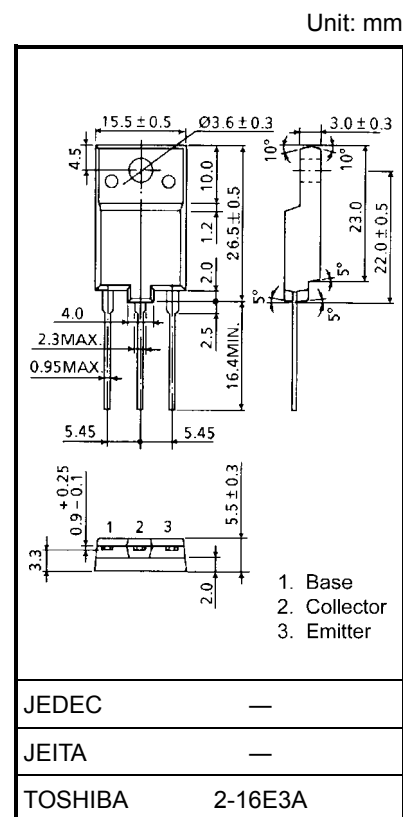
DISPLAY, COLOR TV

HIGH SPEED SWITCHING APPLICATIONS

- High Voltage : $V_{CBO} = 1500\text{ V}$
- Low Saturation Voltage : $V_{CE}(\text{sat}) = 3\text{ V (Max.)}$
- High Speed : $t_f = 0.15\text{ }\mu\text{s (Typ.)}$
- Collector Metal (Fin) is Fully Covered with Mold Resin.

MAXIMUM RATINGS (T_c = 25°C)

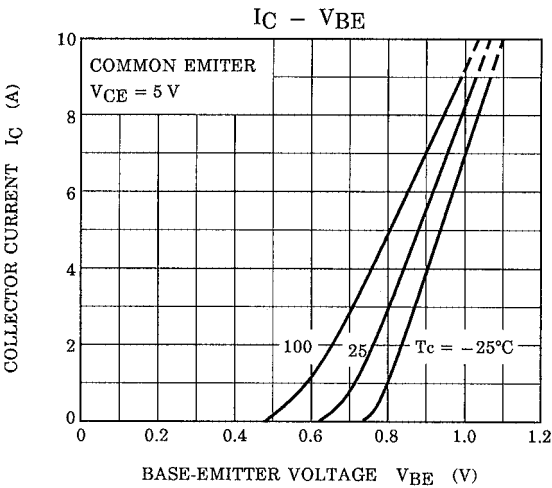
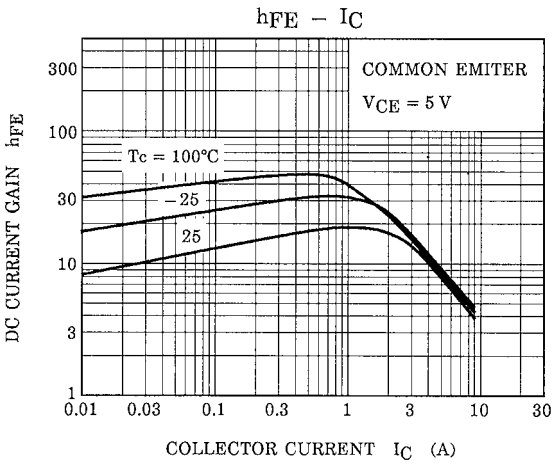
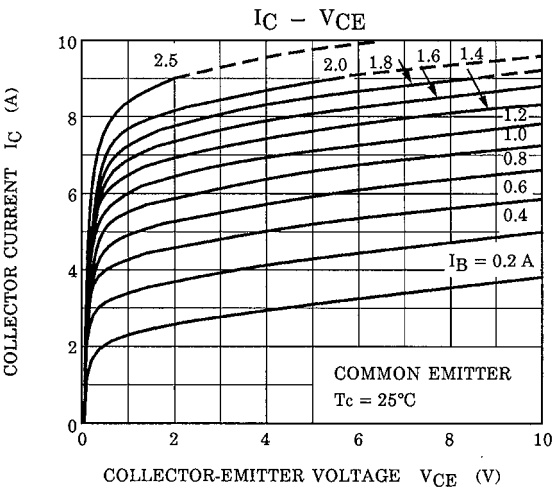
CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector–Base Voltage		V_{CB0}	1500	V
Collector–Emitter Voltage		V_{CE0}	600	V
Emitter–Base Voltage		V_{EB0}	5	V
Collector Current	DC	I_C	9	A
	Pulse	I_{CP}	18	
Base Current		I_B	4.5	A
Collector Power Dissipation		P_C	50	W
Junction Temperature		T_j	150	°C
Storage Temperature Range		T_{stg}	–55~150	°C

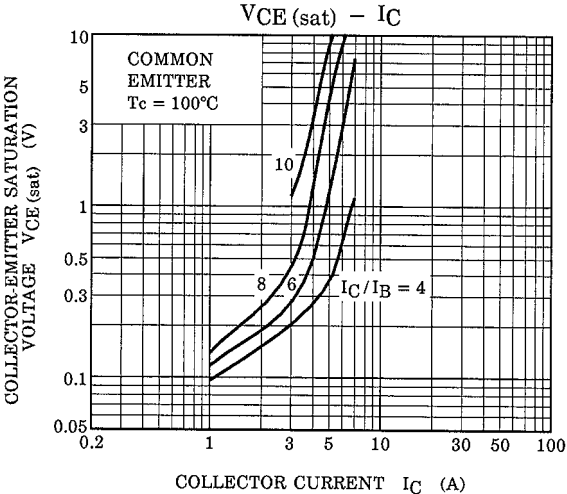
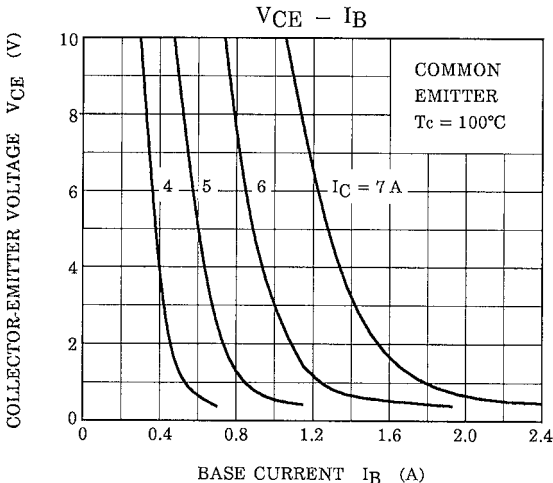
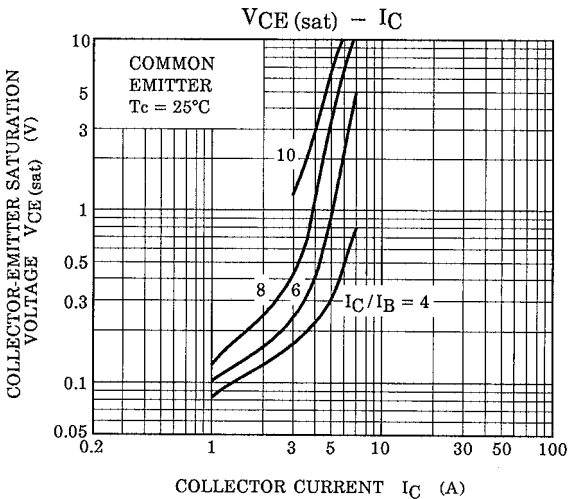
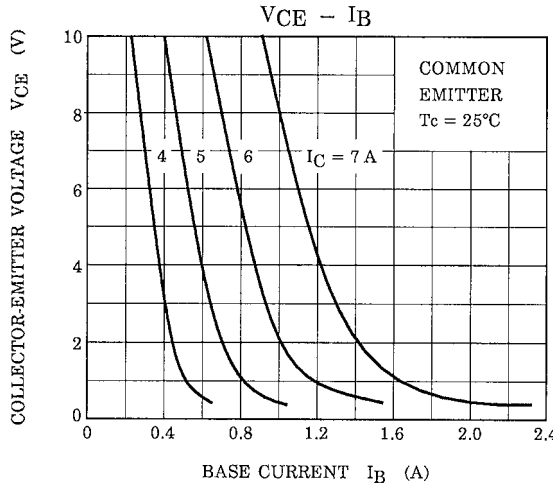
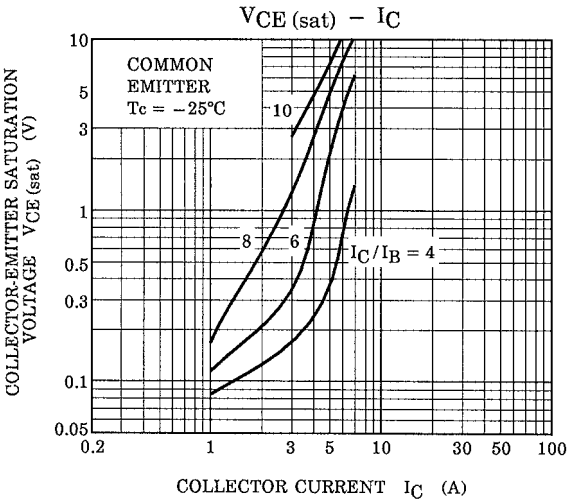
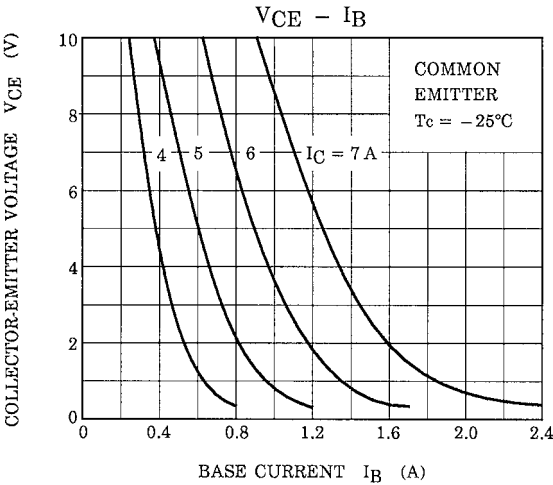


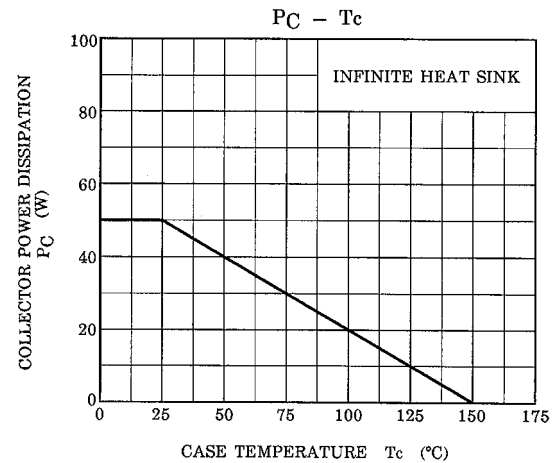
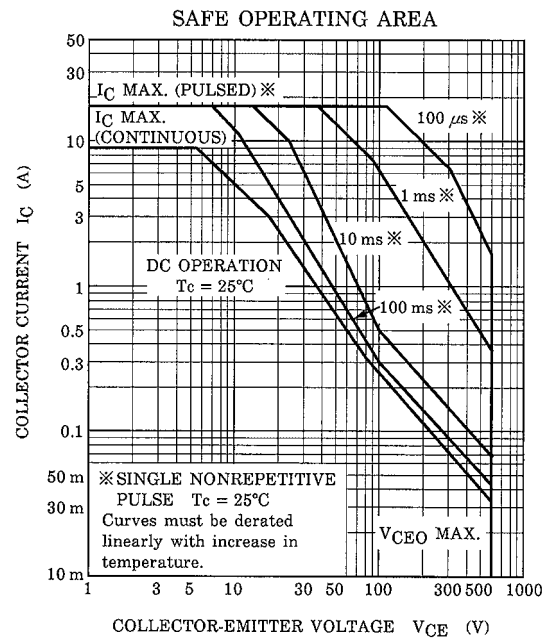
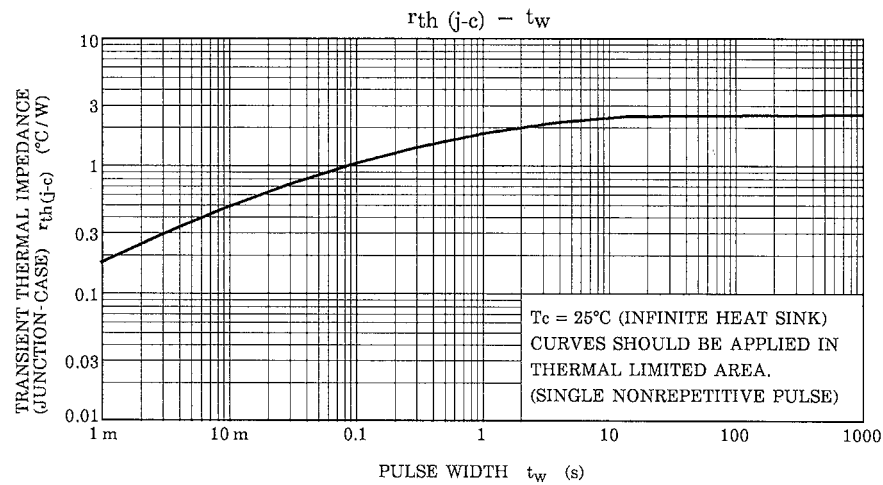
Weight: 5.5 g (typ.)

ELECTRICAL CHARACTERISTICS (T_c = 25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN	TYP.	MAX	UNIT
Collector Cut-off Current		I_{CBO}	$V_{CB} = 1500 \text{ V}, I_E = 0$	—	—	1	mA
Emitter Cut-off Current		I_{EBO}	$V_{EB} = 5 \text{ V}, I_C = 0$	—	—	10	μA
Emitter-Base Breakdown Voltage		$V_{(BR) CEO}$	$I_C = 10 \text{ mA}, I_B = 0$	600	—	—	V
DC Current Gain		$h_{FE (1)}$	$V_{CE} = 5 \text{ V}, I_C = 1 \text{ A}$	10	—	40	—
		$h_{FE (2)}$	$V_{CE} = 5 \text{ V}, I_C = 7 \text{ A}$	4	—	8	
Collector-Emitter Saturation Voltage		$V_{CE (sat)}$	$I_C = 7 \text{ A}, I_B = 1.75 \text{ A}$	—	—	3	V
Base-Emitter Saturation Voltage		$V_{BE (sat)}$	$I_C = 7 \text{ A}, I_B = 1.75 \text{ A}$	—	1.0	1.5	V
Transition Frequency		f_T	$V_{CE} = 10 \text{ V}, I_C = 0.1 \text{ A}$	—	2.5	—	MHz
Collector Output Capacitance		C_{ob}	$V_{CB} = 10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$	—	115	—	pF
Switching Time	Storage Time	t_{stg}	$I_{CP} = 5.5 \text{ A}, I_{B1} (\text{end}) = 1.1 \text{ A}$	—	2.5	3.5	μs
	Fall Time	t_f	$f_H = 64 \text{ kHz}$	—	0.15	0.3	







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