

TOSHIBA TRANSISTOR SILICON NPN TRIPLE DIFFUSED MESA TYPE

2SC5422

HORIZONTAL DEFLECTION OUTPUT FOR HIGH RESOLUTION

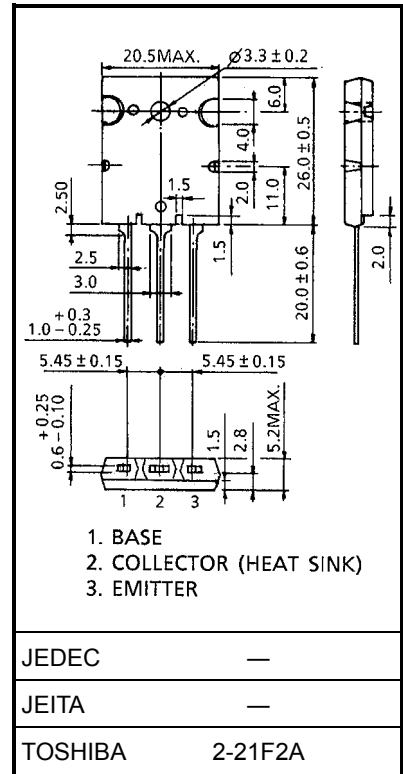
DISPLAY, COLOR TV

HIGH SPEED SWITCHING APPLICATIONS

- High Voltage : $V_{CBO} = 1700\text{ V}$
- Low Saturation Voltage : $V_{CE(sat)} = 3\text{ V (Max.)}$
- High Speed : $t_f = 0.15\ \mu\text{s (Typ.)}$

MAXIMUM RATINGS ($T_c = 25^\circ\text{C}$)

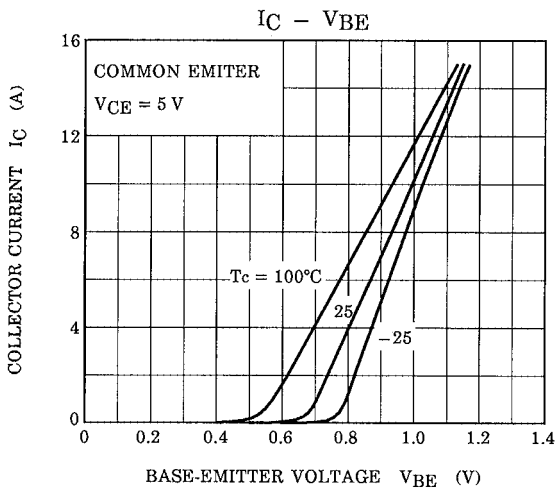
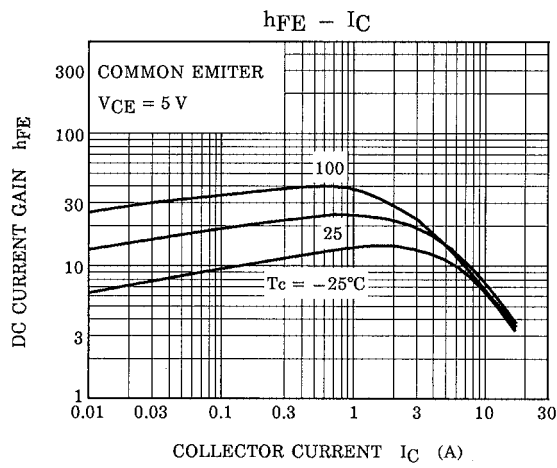
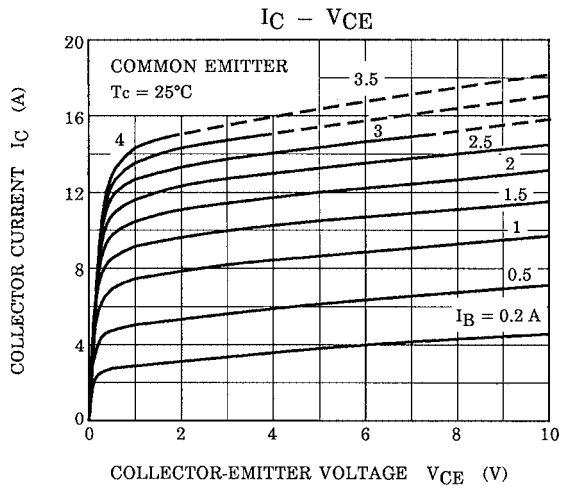
CHARACTERISTIC SYM		BOL	RATING	UNIT
Collector-Base Voltage		V_{CBO}	1700 V	
Collector-Emitter Voltage		V_{CEO}	600	V
Emitter-Base Voltage		V_{EBO}	5	V
Collector Current	DC I	I_C	15	A
	Pulse	I_{CP}	30	
Base Current		I_B	7.5 A	
Collector Power Dissipation		P_C	200	W
Junction Temperature		T_j	150 °	C
Storage Temperature Range		T_{stg}	-55~150 °	C

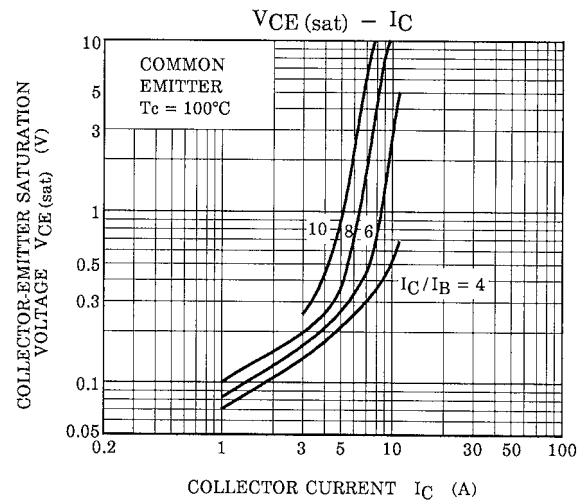
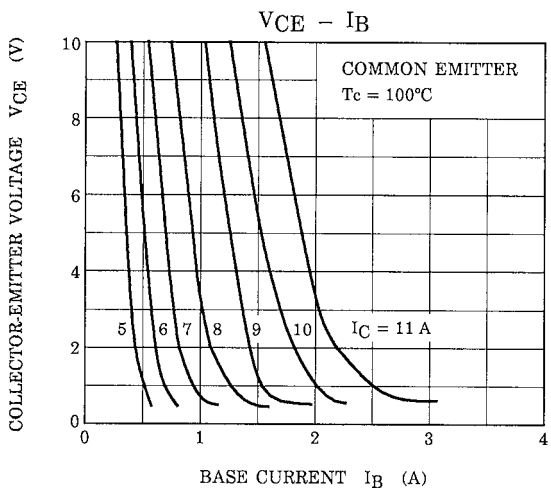
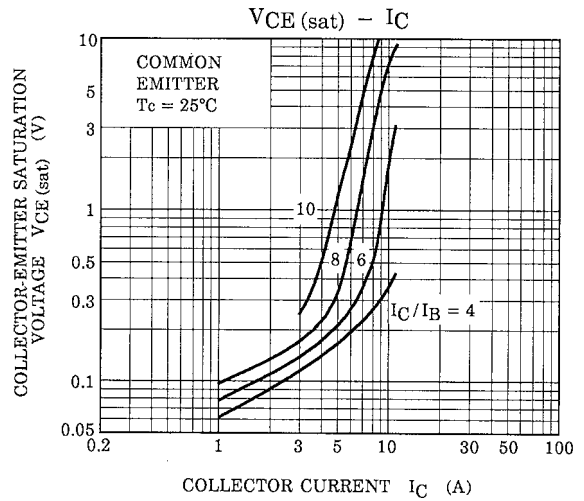
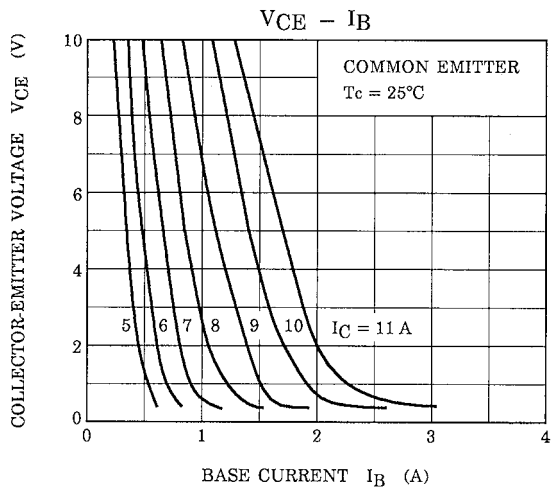
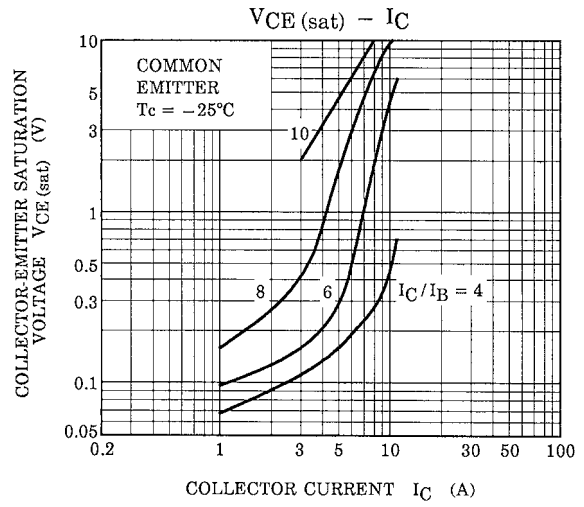
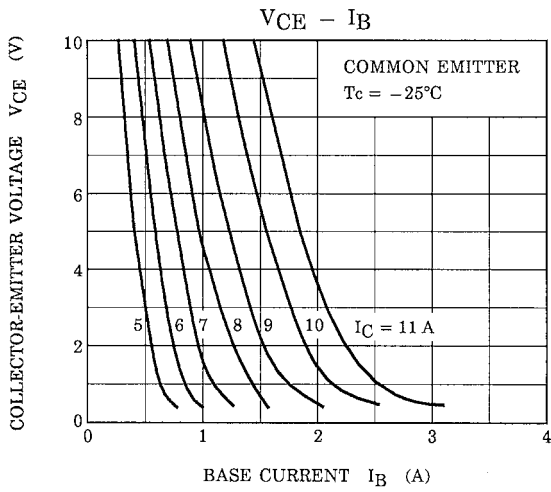


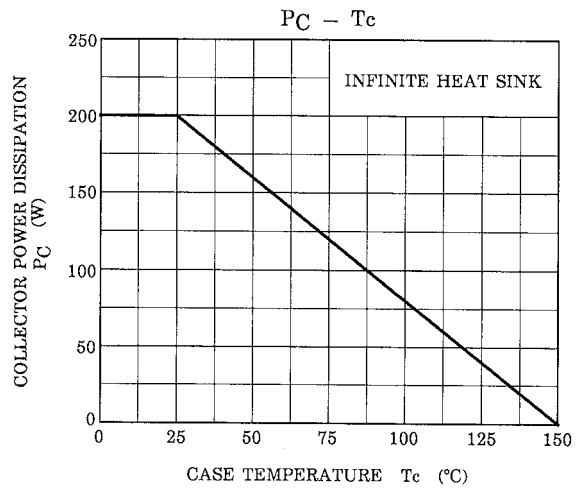
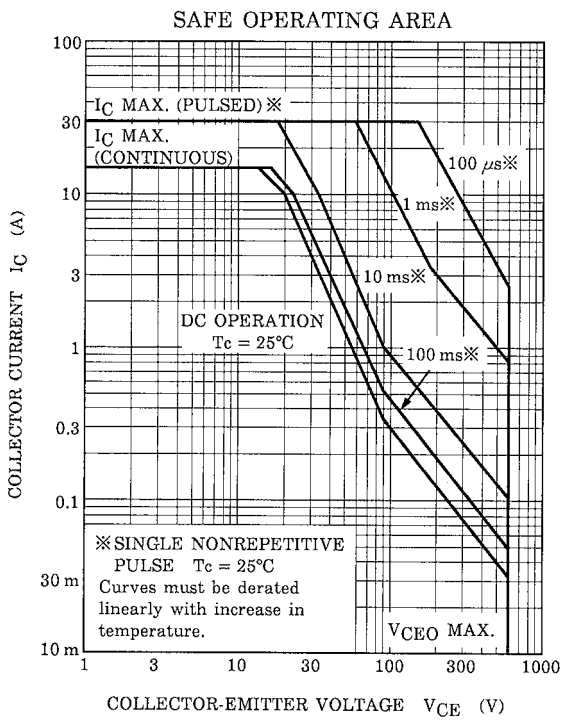
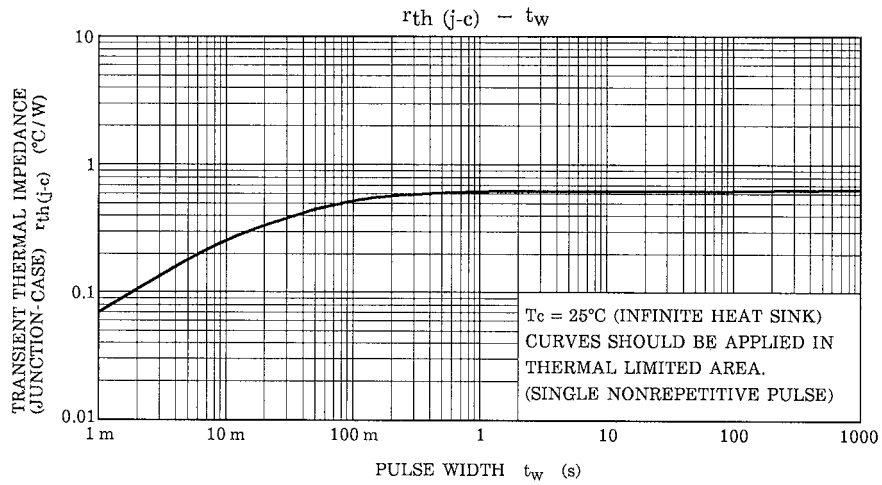
Weight: 9.75 g (typ.)

ELECTRICAL CHARACTERISTICS ($T_c = 25^\circ\text{C}$)

CHARACTERISTIC S		YMBOL	TEST CONDITION	MIN	TYP.	MAX	UNIT
Collector Cut-off Current		I_{CBO}	$V_{CB} = 1700\text{ V}, I_E = 0$	—	— 1		mA
Emitter Cut-off Current		I_{EBO}	$V_{EB} = 5\text{ V}, I_C = 0$	—	— 100		μA
Emitter-Base Breakdown Voltage		$V_{(BR)CEO}$	$I_C = 10\text{ mA}, I_B = 0$	600	—	— V	
DC Current Gain	$h_{FE(1)}$		$V_{CE} = 5\text{ V}, I_C = 2\text{ A}$	10	—	40	—
	$h_{FE(2)}$		$V_{CE} = 5\text{ V}, I_C = 11\text{ A}$	4.5	— 8.	5	
Collector-Emitter Saturation Voltage		$V_{CE(sat)}$	$I_C = 11\text{ A}, I_B = 2.75\text{ A}$	—	— 3		V
Base-Emitter Saturation Voltage		$V_{BE(sat)}$	$I_C = 11\text{ A}, I_B = 2.75\text{ A}$	—	1.0	1.5	V
Transition Frequency		f_T	$V_{CE} = 10\text{ V}, I_C = 0.1\text{ A}$	—	2	—	MHz
Collector Output Capacitance		C_{ob}	$V_{CB} = 10\text{ V}, I_E = 0, f = 1\text{ MHz}$	— 220		—	pF
Switching Time	Storage Time	t_{stg}	$I_{CP} = 8\text{ A}, I_{B1}(\text{end}) = 1.4\text{ A}$ $f_H = 64\text{ kHz}$	—	2.5	3.5	μs
	Fall Time	t_f		—	0.15 0.	3	







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