

TOSHIBA TRANSISTOR SILICON NPN TRIPLE DIFFUSED MESA TYPE

2SC5339

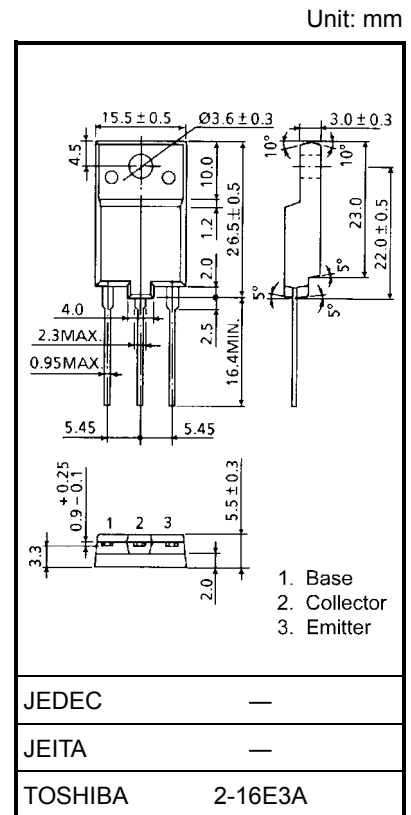
HORIZONTAL DEFLECTION OUTPUT FOR MEDIUM RESOLUTION DISPLAY, COLOR TV

HIGH SPEED SWITCHING APPLICATIONS

- High Voltage : $V_{CBO} = 1500\text{ V}$
- Low Saturation Voltage : $V_{CE(sat)} = 5\text{ V (Max.)}$
- High Speed : $t_f = 0.2\ \mu\text{s (Typ.)}$
- Built-in Damper Type
- Collector Metal (Fin) is Fully Covered with Mold Resin.

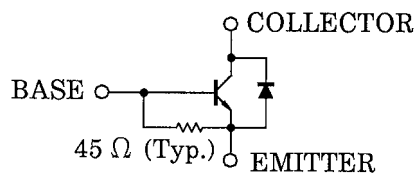
MAXIMUM RATINGS ($T_c = 25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	1500	V
Collector-Emitter Voltage	V_{CEO}	600	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	DC	I_C	7
	Pulse	I_{CP}	14
Base Current	I_B	3.5	A
Collector Power Dissipation	P_C	50	W
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55~150	$^\circ\text{C}$



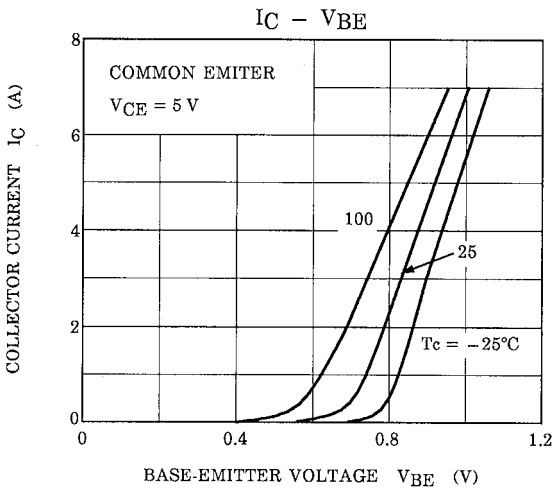
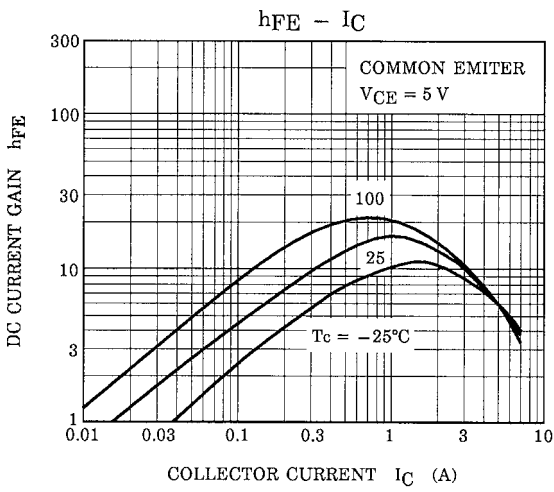
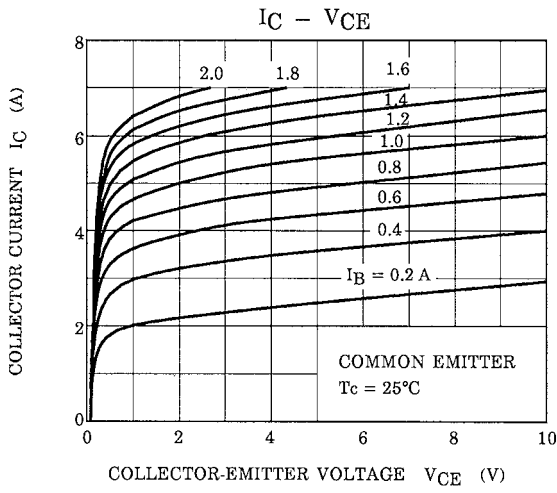
Weight: 5.5 g (typ.)

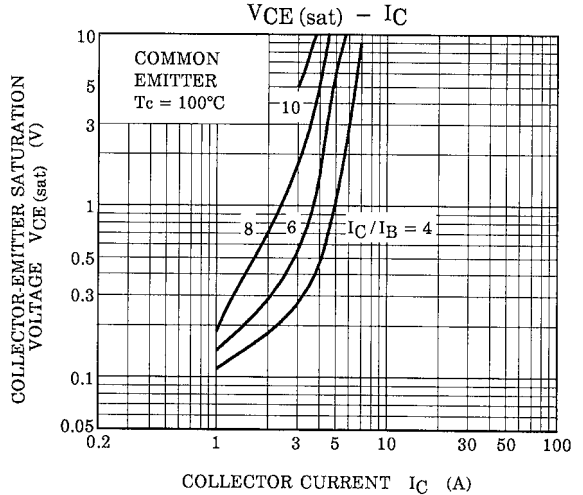
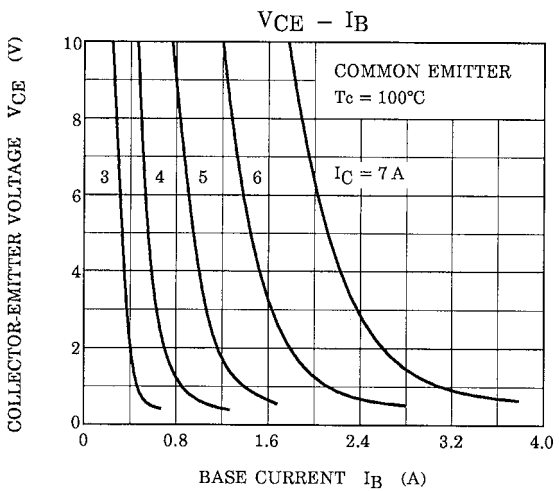
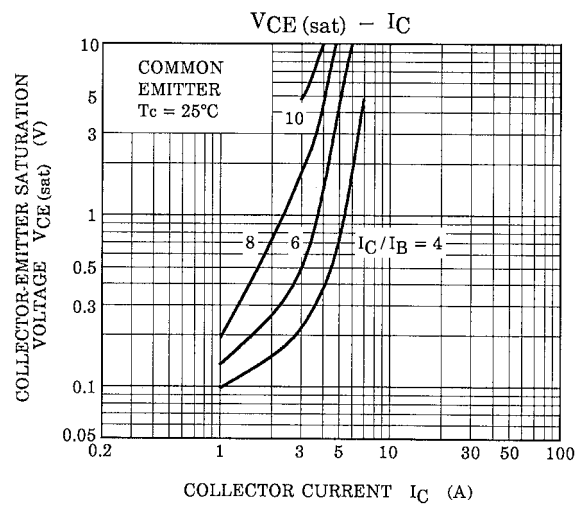
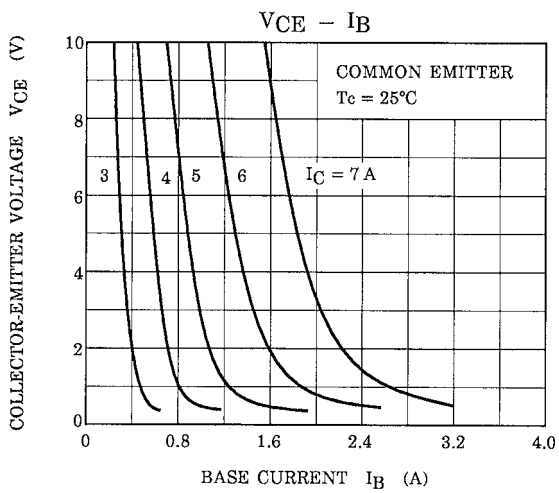
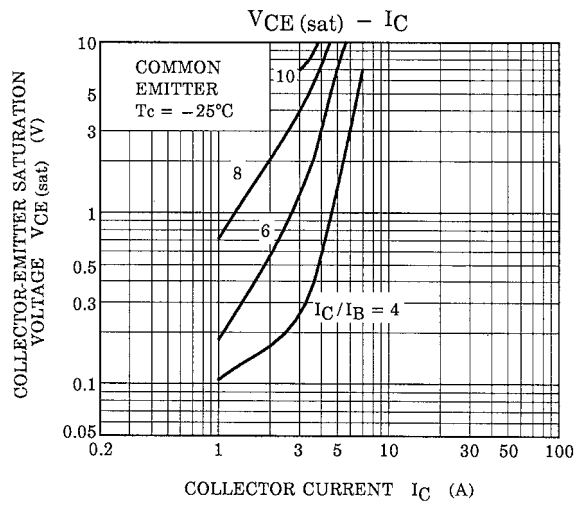
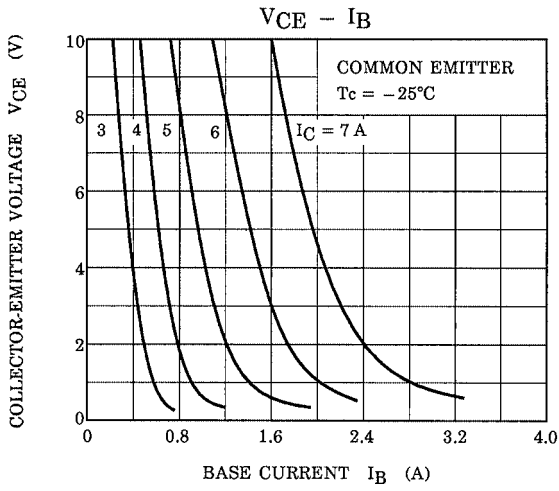
EQUIVALENT CIRCUIT

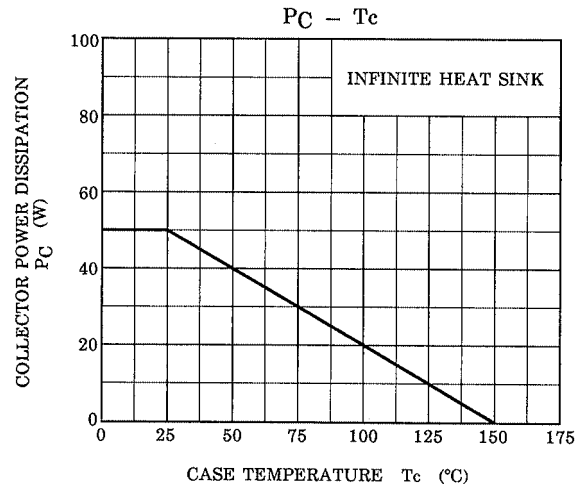
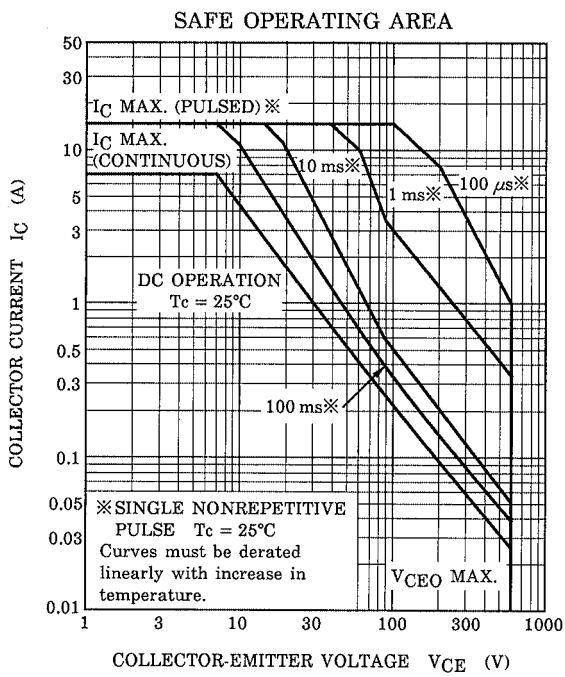
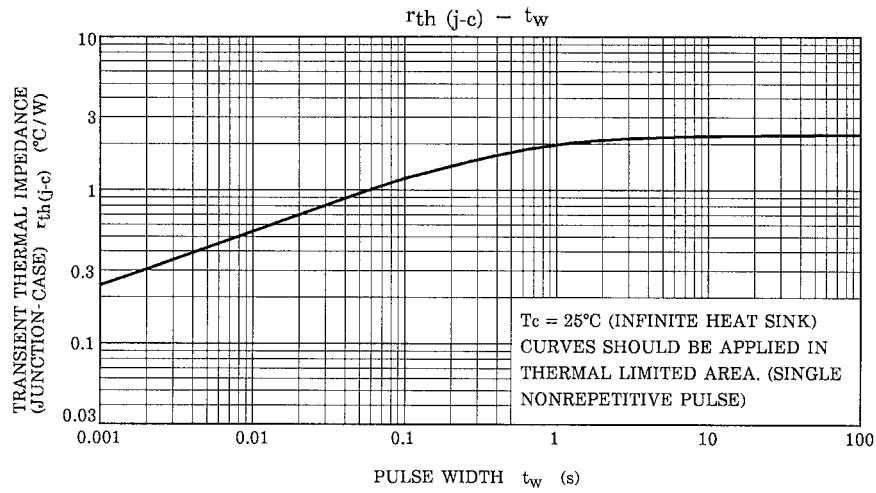


ELECTRICAL CHARACTERISTICS (T_c = 25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN	TYP.	MAX	UNIT
Collector Cut-off Current		I _{CBO}	V _{CB} = 1500 V, I _E = 0	—	—	1	mA
Emitter Cut-off Current		I _{EBO}	V _{EB} = 5 V, I _C = 0	71	—	250	mA
Emitter-Base Breakdown Voltage		V _{(BR) EBO}	I _E = 400 mA, I _C = 0	5	—	—	V
DC Current Gain		h _{FE} (1)	V _{CE} = 5 V, I _C = 1 A	10	—	30	—
		h _{FE} (2)	V _{CE} = 5 V, I _C = 5 A	4	—	8	
Collector-Emitter Saturation Voltage		V _{CE (sat)}	I _C = 5 A, I _B = 1.25 A	—	—	5	V
Base-Emitter Saturation Voltage		V _{BE (sat)}	I _C = 5 A, I _B = 1.25 A	—	1.0	1.3	V
Forward Voltage (Damper Diode)		V _F	I _F = 5 A	—	1.35	1.8	V
Transition Frequency		f _T	V _{CE} = 10 V, I _C = 0.1 A	—	2.4	—	MHz
Collector Output Capacitance		C _{ob}	V _{CB} = 10 V, I _E = 0, f = 1 MHz	—	82	—	pF
Switching Time	Storage Time	t _{stg}	I _{CP} = 5 A, I _{B1} (end) = 1.1 A f _H = 31.5 kHz	—	4	6	μs
	Fall Time	t _f		—	0.2	0.5	







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