

TOSHIBA TRANSISTOR SILICON NPN TRIPLE DIFFUSED MESA TYPE

2SD2551

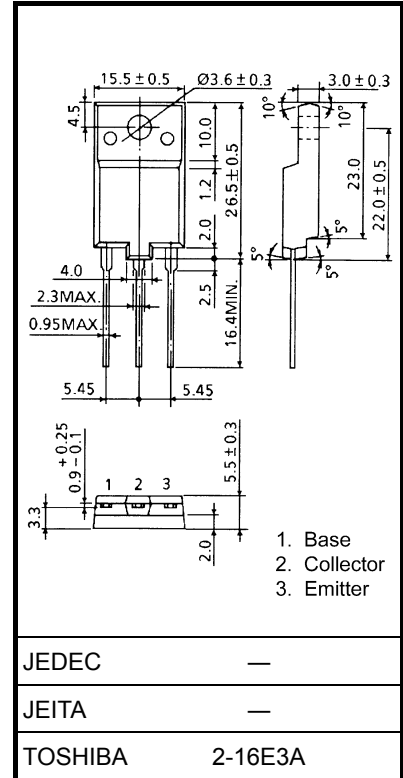
HORIZONTAL DEFLECTION OUTPUT FOR COLOR TV

Unit: mm

- High Voltage : $V_{CBO} = 1700\text{ V}$
- Low Saturation Voltage : $V_{CE(sat)} = 5.0\text{ V (Max.)}$
- High Speed : $t_f = 1.0\text{ }\mu\text{s (Max.)}$
- Built-in Damper Type
- Collector Metal (Fin) is Fully Covered with Mold Resin.

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

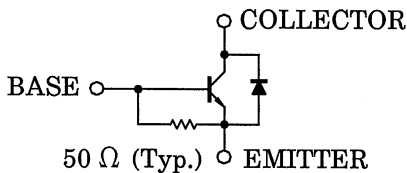
CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	1700	V
Collector-Emitter Voltage	V_{CEO}	600	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	DC	I_C	5
	Pulse	I_{CP}	10
Base Current	I_B	2.5	A
Collector Power Dissipation	P_C	50	W
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55~150	$^\circ\text{C}$



Weight: 5.5 g (typ.)

Note: Using continuously under heavy loads (e.g. the application of high temperature/current/voltage and the significant change in temperature, etc.) may cause this product to decrease in the reliability significantly even if the operating conditions (i.e. operating temperature/current/voltage, etc.) are within the absolute maximum ratings. Please design the appropriate reliability upon reviewing the Toshiba Semiconductor Reliability Handbook ("Handling Precautions"/Derating Concept and Methods) and individual reliability data (i.e. reliability test report and estimated failure rate, etc).

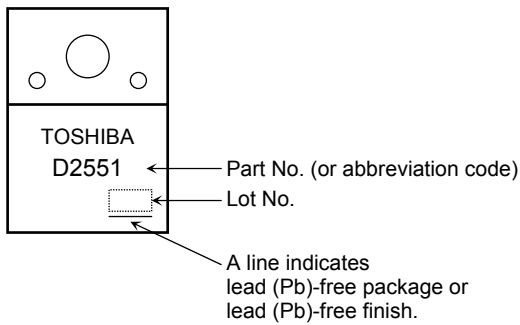
EQUIVALENT CIRCUIT

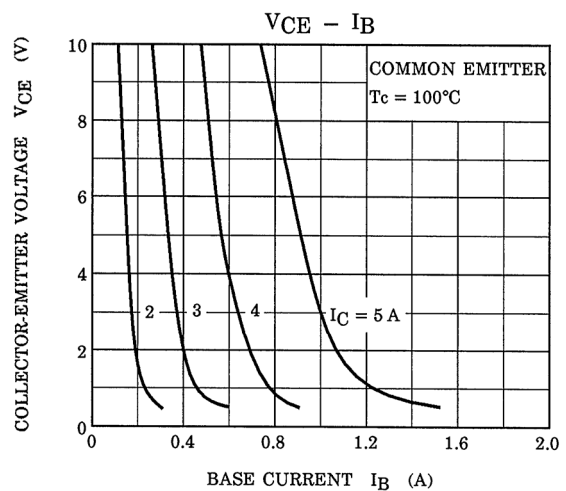
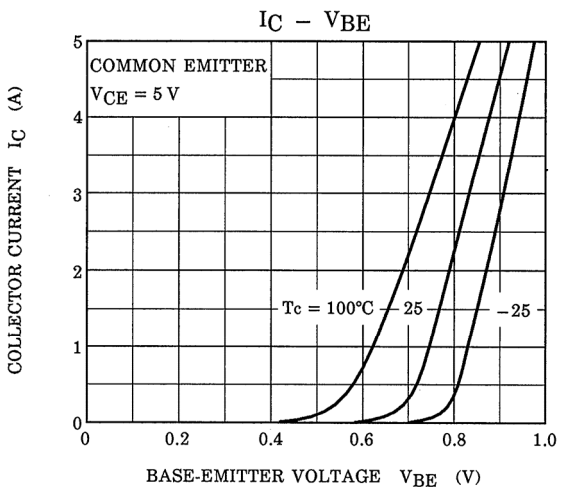
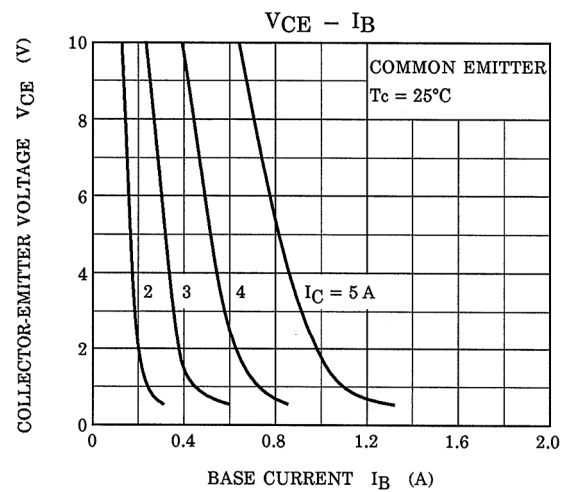
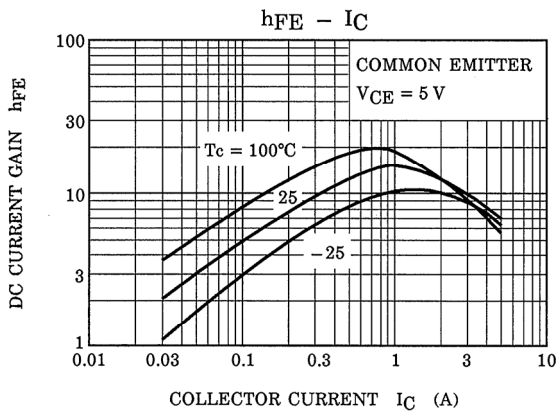
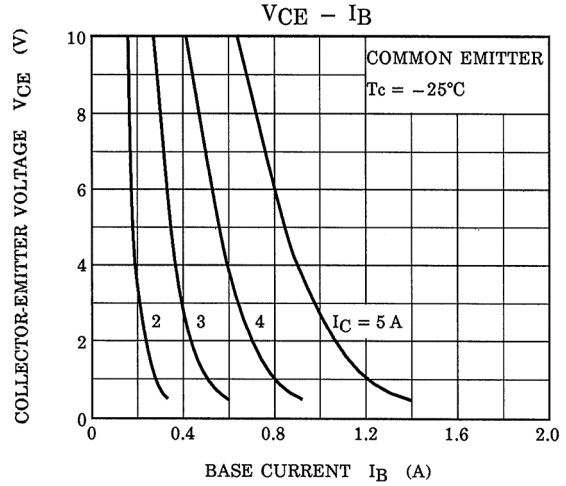
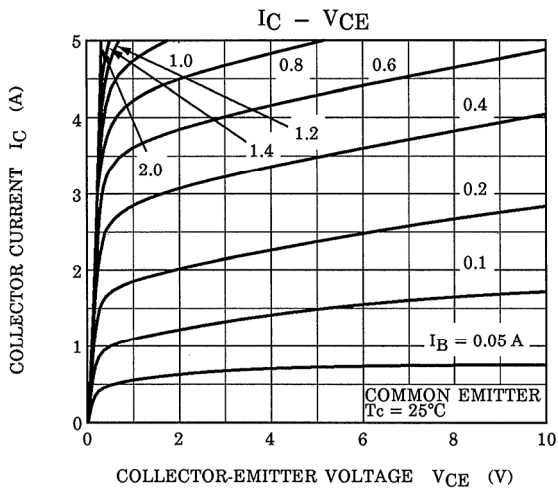


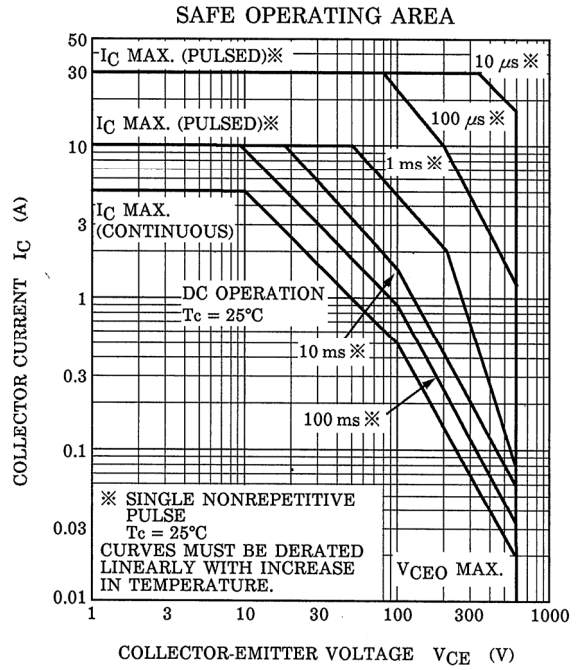
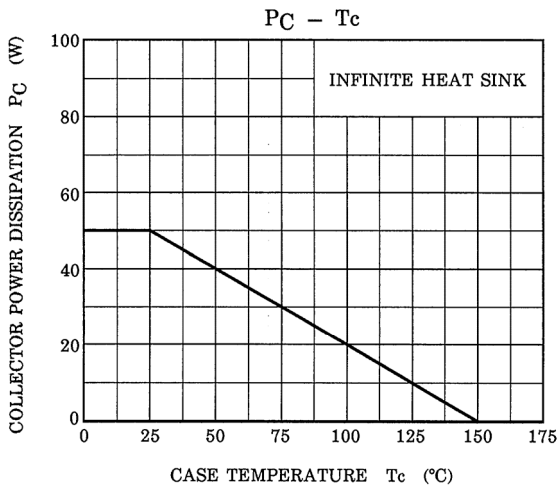
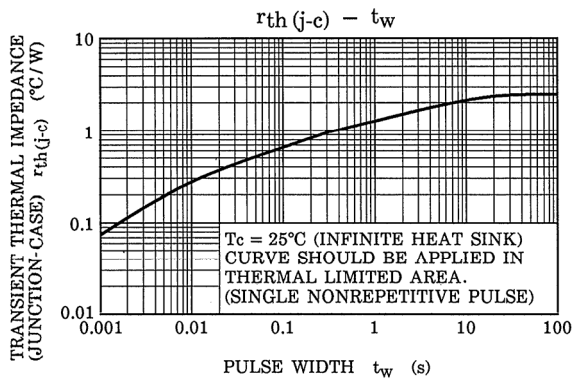
ELECTRICAL CHARACTERISTICS (T_c = 25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN	TYP.	MAX	UNIT
Collector Cut-off Current		I _{CBO}	V _{CB} = 1700 V, I _E = 0	—	—	1	mA
Emitter Cut-off Current		I _{EBO}	V _{EB} = 5 V, I _C = 0	66	—	200	mA
Emitter-Base Breakdown Voltage		V _(BR) EBO	I _C = 300 mA, I _B = 0	5	—	—	V
DC Current Gain		h _{FE} (1)	V _{CE} = 5 V, I _C = 1 A	8	—	28	—
DC Current Gain		h _{FE} (2)	V _{CE} = 5 V, I _C = 4 A	5	—	10	—
Collector-Emitter Saturation Voltage		V _{CE (sat)}	I _C = 4 A, I _B = 0.8 A	—	—	5	V
Base-Emitter Saturation Voltage		V _{BE (sat)}	I _C = 4 A, I _B = 0.8 A	—	—	1.5	V
Forward Voltage (Damper Diode)		V _F	I _F = 5 A	—	1.6	2.0	V
Transition Frequency		f _T	V _{CE} = 10 V, I _C = 0.1 A	—	3	—	MHz
Collector Output Capacitance		C _{ob}	V _{CB} = 10 V, I _E = 0, f = 1 MHz	—	125	—	pF
Switching Time	Storage Time	t _{stg}	I _{CP} = 4 A, I _{B1} (end) = 0.8 A f _H = 15.75 kHz	—	7.5	10	μs
	Fall Time	t _f		—	0.5	1.0	

MARKING







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20070701-EN

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