

TOSHIBA Transistor Silicon NPN Triple Diffused Mesa Type

2SC5748

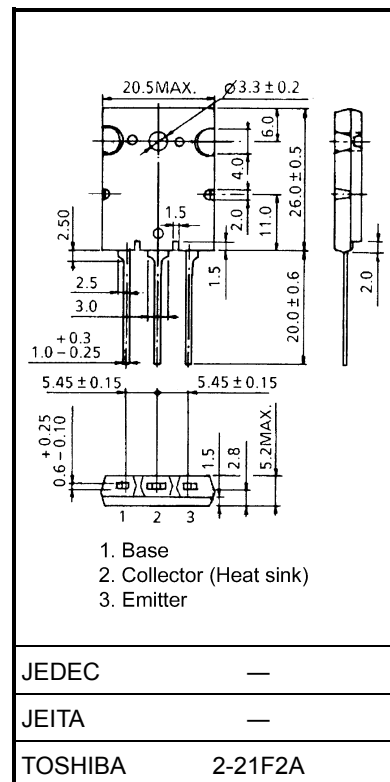
Horizontal Deflection Output for HDTV&Digital TV.

Unit: mm

- High voltage: $V_{CBO} = 2000\text{ V}$
- Low saturation voltage: $V_{CE(sat)} = 3\text{ V (max)}$
- High speed: $t_f = 0.15\text{ }\mu\text{s (typ.)}$

Maximum Ratings ($T_c = 25^\circ\text{C}$)

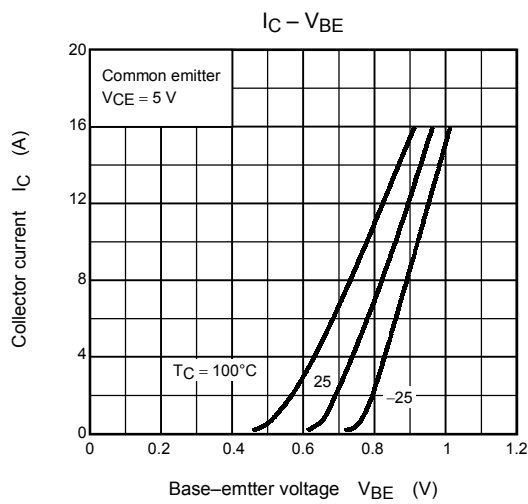
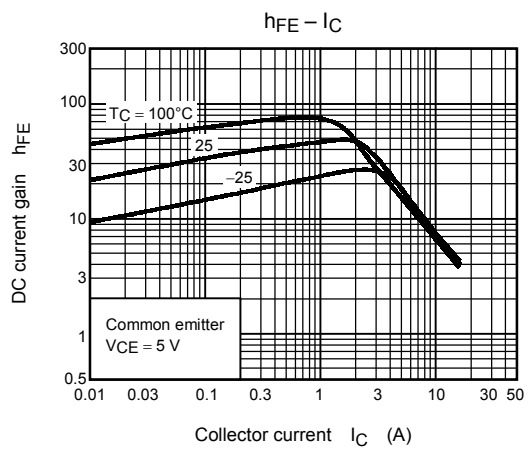
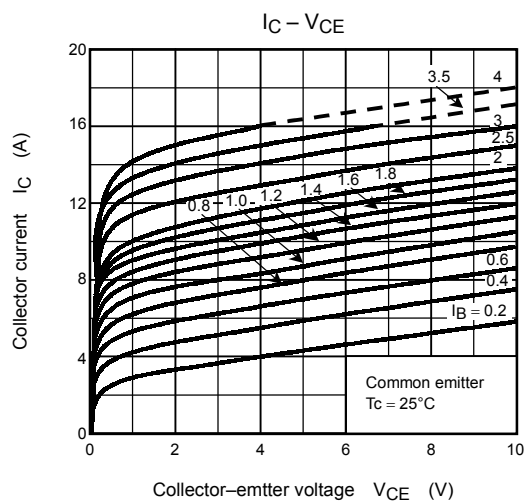
Characteristics		Symbol	Rating	Unit
Collector-base voltage		V_{CBO}	2000	V
Collector-emitter voltage		V_{CEO}	900	V
Emitter-base voltage		V_{EBO}	5	V
Collector current	DC	I_C	16	A
	Pulse	I_{CP}	32	
Base current		I_B	8	A
Collector power dissipation		P_C	210	W
Junction temperature		T_j	150	$^\circ\text{C}$
Storage temperature range		T_{stg}	-55~150	$^\circ\text{C}$

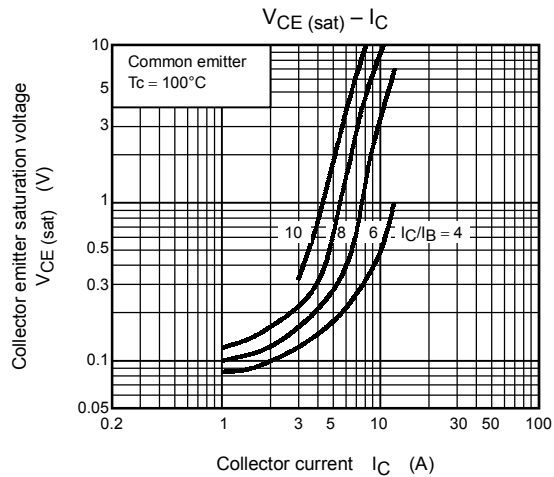
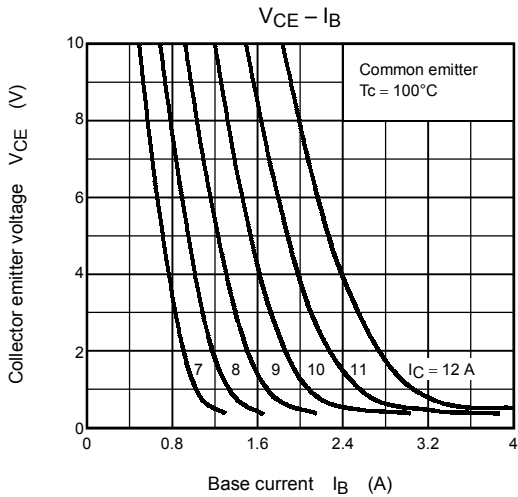
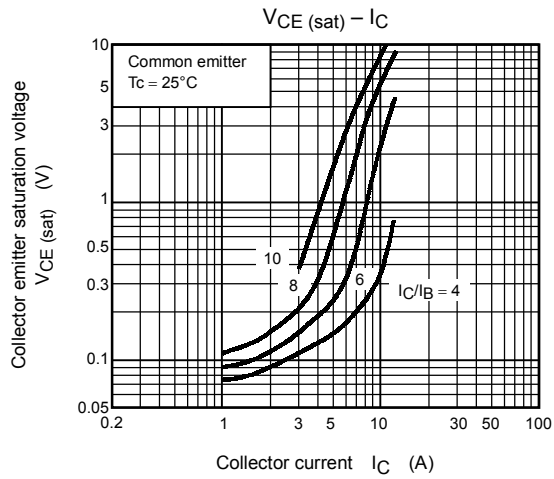
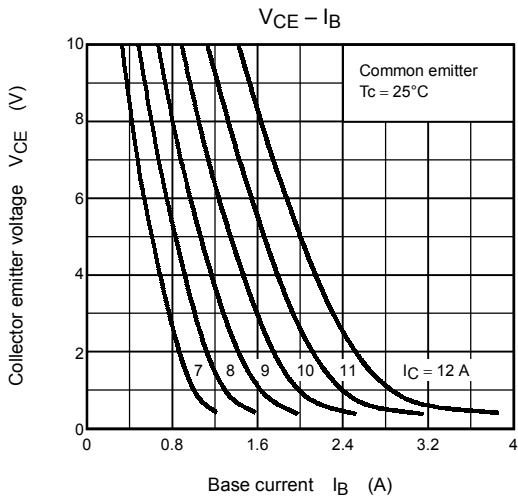
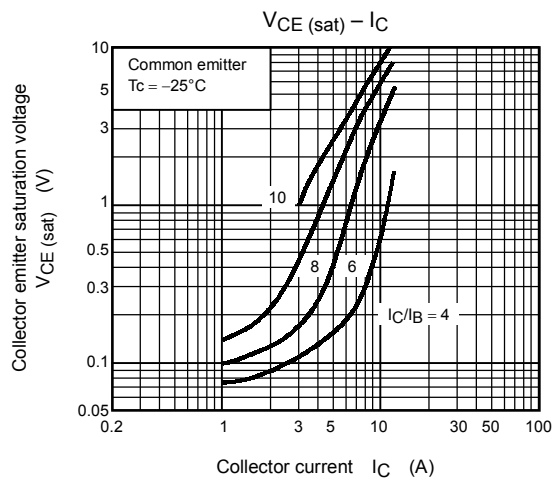
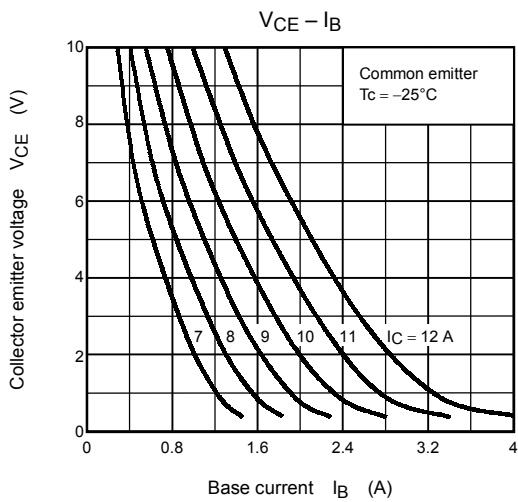


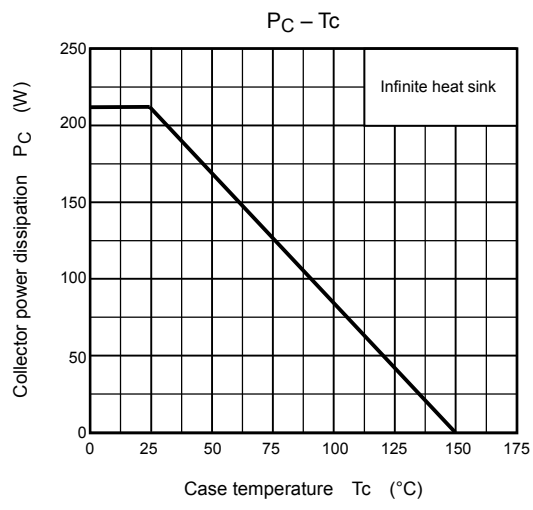
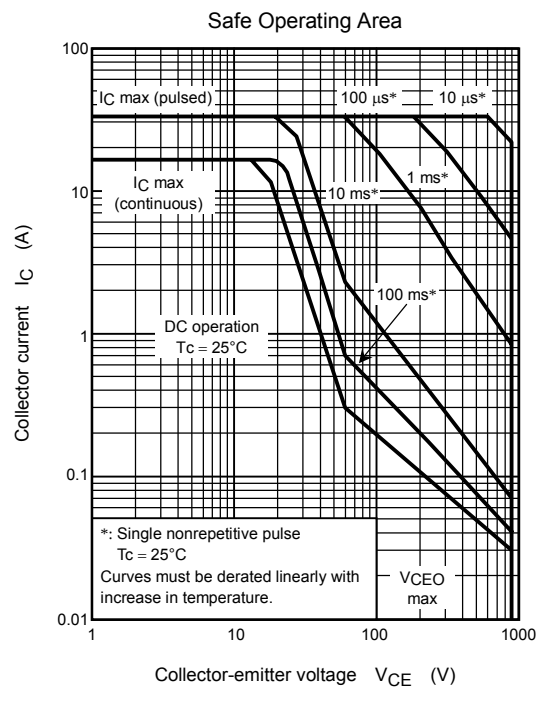
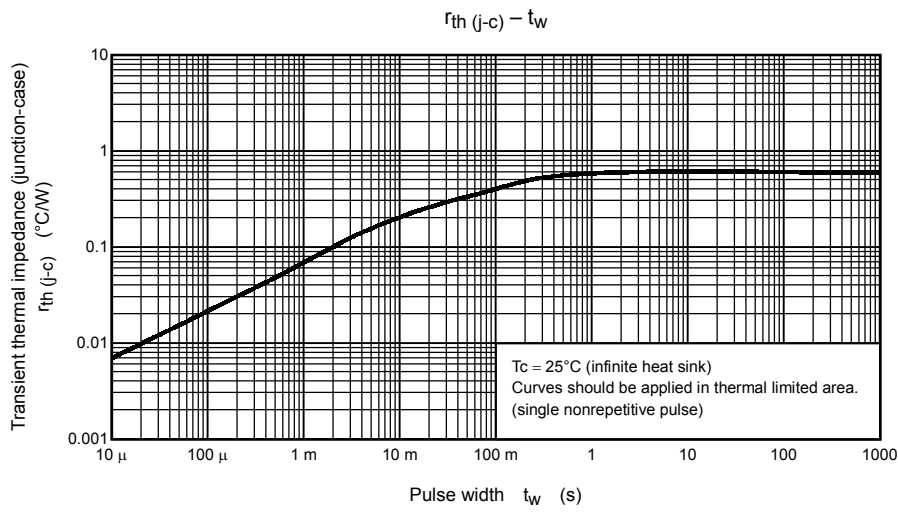
Weight: 9.75 g (typ.)

Electrical Characteristics ($T_c = 25^\circ\text{C}$)

Characteristics		Symbol	Test Condition	Min	Typ.	Max	Unit
Collector cut-off current		I _{CBO}	V _{CB} = 2000 V, I _E = 0	—	—	1	mA
Emitter cut-off current		I _{EBO}	V _{EB} = 5 V, I _C = 0	—	—	100	μA
Collector-emitter breakdown voltage		V _(BR) CEO	I _C = 10 mA, I _B = 0	900	—	—	V
DC current gain	h _{FE} (1)		V _{CE} = 5 V, I _C = 2 A	20	—	55	—
	h _{FE} (2)		V _{CE} = 5 V, I _C = 8 A	7	—	12.5	
	h _{FE} (3)		V _{CE} = 5 V, I _C = 12 A	4.8		7.5	
Collector-emitter saturation voltage		V _{CE} (sat)	I _C = 12 A, I _B = 3 A	—	—	3	V
Base-emitter saturation voltage		V _{BE} (sat)	I _C = 12 A, I _B = 3 A	—	—	1.3	V
Transition frequency		f _T	V _{CE} = 10 V, I _C = 0.1 A	—	2	—	MHz
Collector output capacitance		C _{ob}	V _{CB} = 10 V, I _E = 0, f = 1 MHz	—	310	—	pF
Switching time	Storage time	t _{stg}	I _{CP} = 8 A, I _{B1} (end) = 1.2 A, f _H = 32 kHz	—	4.0	5.0	μs
	Fall time	t _f		—	0.15	0.35	







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