

TOSHIBA Transistor Silicon PNP Epitaxial Type (PCT Process)

2SA1408

Color TV Vertical Deflection Output Applications

Color TV Class-B Sound Output Applications

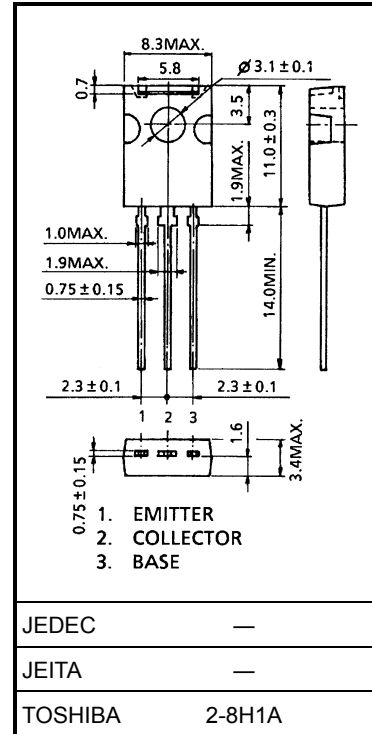
- Large collector current and collector power dissipation capability
- Recommended for vertical deflection output and sound output applications for line-operated TV.
- Complementary to 2SC3621

Absolute Maximum Ratings (Tc = 25°C)

Characteristics	Symbol	Rating	Unit
Collector-base voltage	V _{CBO}	-150	V
Collector-emitter voltage	V _{CEO}	-150	V
Emitter-base voltage	V _{EBO}	-6	V
Collector current	I _C	-1.5	A
Base current	I _B	-1.0	A
Collector power dissipation	P _C	T _a = 25°C	1.5
		T _c = 25°C	10
Junction temperature	T _j	150	°C
Storage temperature range	T _{stg}	-55 to 150	°C

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).

Unit: mm



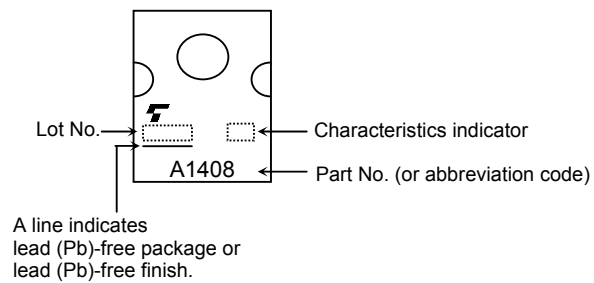
Weight: 0.82 g (typ.)

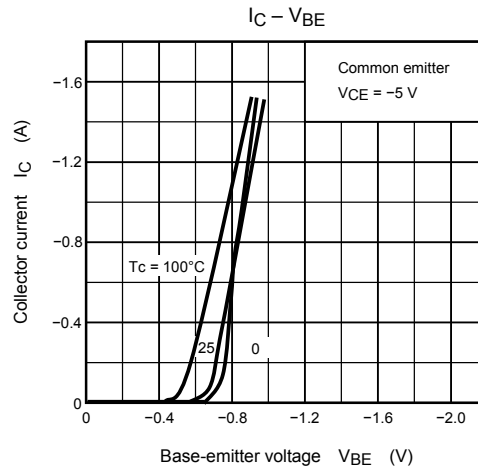
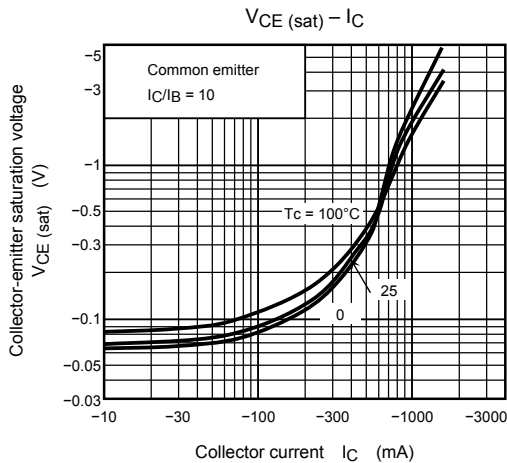
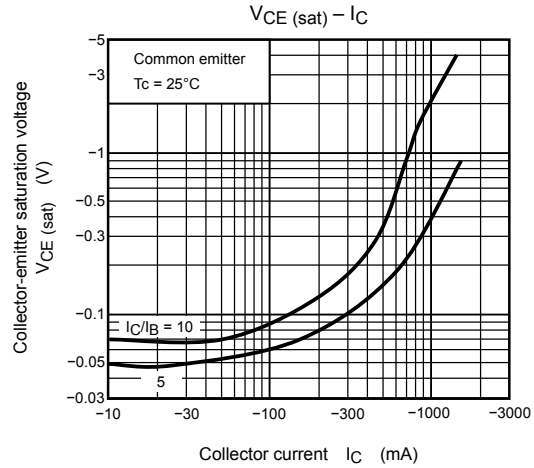
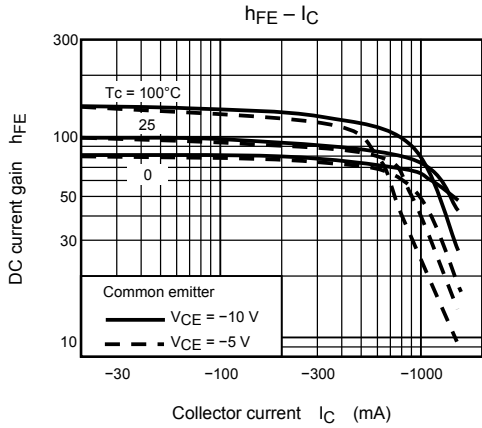
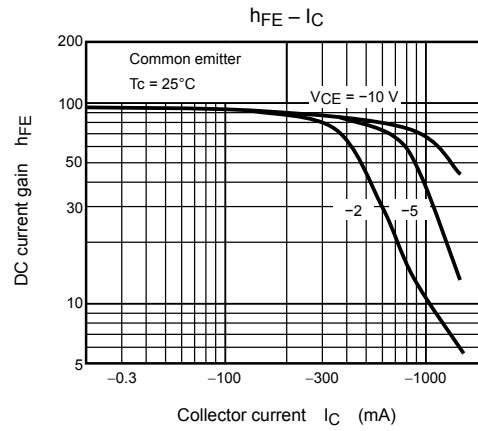
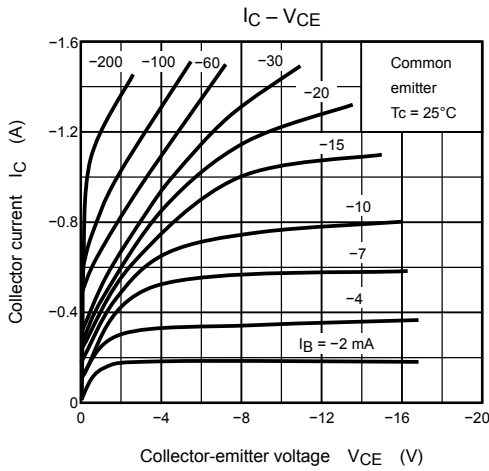
Electrical Characteristics (Tc = 25°C)

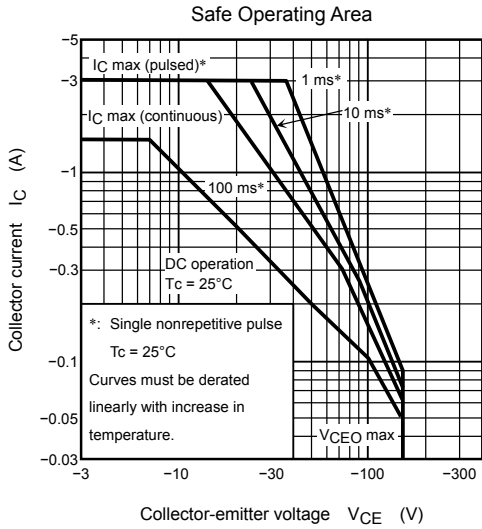
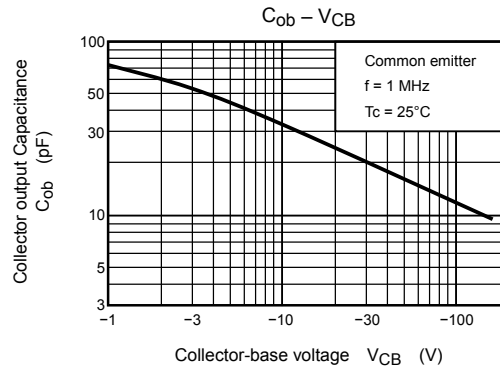
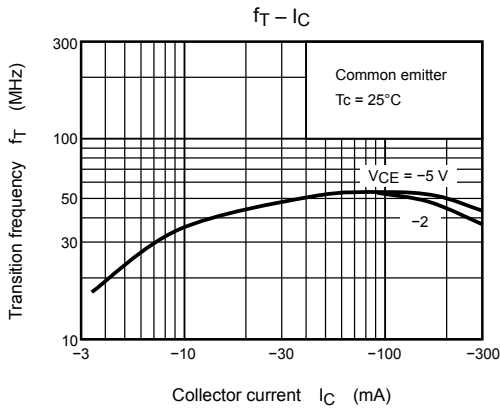
Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Collector cut-off current	I_{CBO}	$V_{CB} = -150\text{ V}, I_E = 0$	—	—	-1.0	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -6\text{ V}, I_C = 0$	—	—	-1.0	μA
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -10\text{ mA}, I_B = 0$	-150	—	—	V
DC current gain	h_{FE} (Note)	$V_{CE} = -5\text{ V}, I_C = -200\text{ mA}$	60	—	200	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -500\text{ mA}, I_B = -50\text{ mA}$	—	—	-1.5	V
Base-emitter voltage	V_{BE}	$V_{CE} = -5\text{ V}, I_C = -5\text{ mA}$	-0.5	—	-0.8	V
Transition frequency	f_T	$V_{CE} = -5\text{ V}, I_C = -200\text{ mA}$	15	50	—	MHz
Collector output capacitance	C_{ob}	$V_{CB} = -10\text{ V}, I_E = 0, f = 1\text{ MHz}$	—	—	35	pF

Note: h_{FE} classification R: 60 to 120, O: 100 to 200

Marking







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20070701-EN

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