

TOSHIBA Transistor Silicon NPN Epitaxial Type (PCT Process)

2SC3665

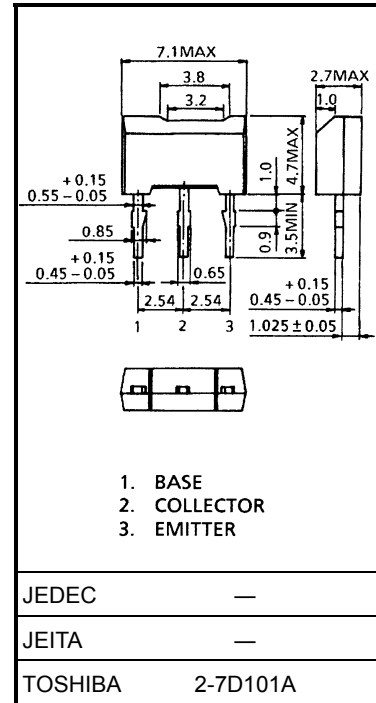
Audio Power Amplifier Applications
Driver-Stage Amplifier Applications

Unit: mm

- Complementary to 2SA1425.

Maximum Ratings (Ta = 25°C)

Characteristics	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	120	V
Collector-emitter voltage	V_{CEO}	120	V
Emitter-base voltage	V_{EBO}	5	V
Collector current	I_C	800	mA
Base current	I_B	80	mA
Collector power dissipation	P_C	1000	mW
Junction temperature	T_j	150	°C
Storage temperature range	T_{stg}	-55 to 150	°C



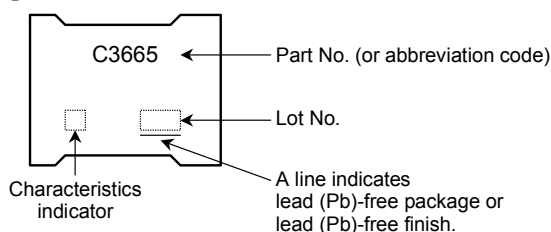
Weight: 0.2 g (typ.)

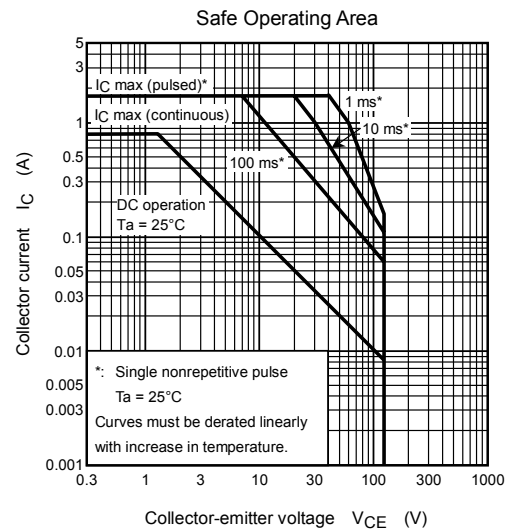
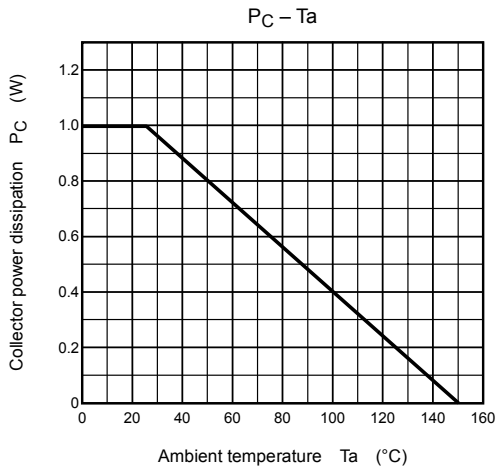
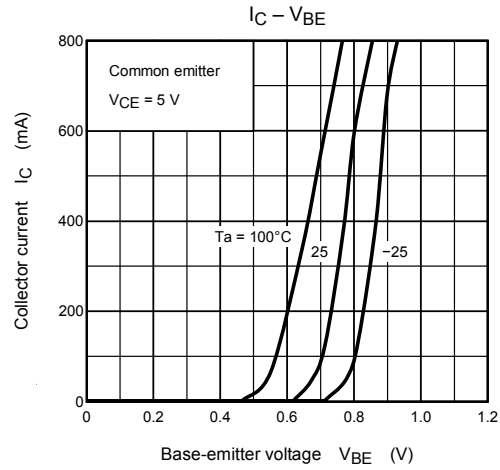
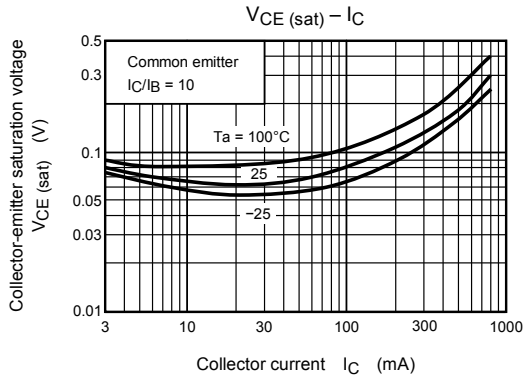
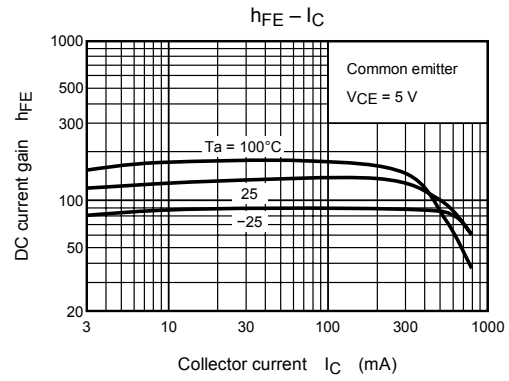
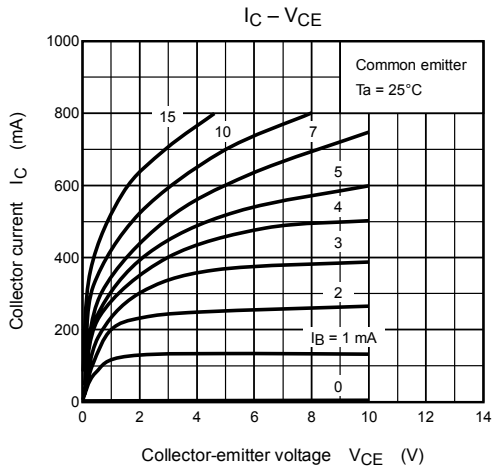
Electrical Characteristics (Ta = 25°C)

Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Collector cut-off current	I_{CBO}	$V_{CB} = 120\text{ V}, I_E = 0$	—	—	100	nA
Emitter cut-off current	I_{EBO}	$V_{EB} = 5\text{ V}, I_C = 0$	—	—	100	nA
Collector-emitter breakdown voltage	$V_{(BR) CEO}$	$I_C = 10\text{ mA}, I_B = 0$	120	—	—	V
Emitter-base breakdown voltage	$V_{(BR) EBO}$	$I_E = 1\text{ mA}, I_C = 0$	5	—	—	V
DC current gain	h_{FE} (Note)	$V_{CE} = 5\text{ V}, I_C = 100\text{ mA}$	80	—	240	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 500\text{ mA}, I_B = 50\text{ mA}$	—	—	1.0	V
Base-emitter voltage	V_{BE}	$V_{CE} = 5\text{ V}, I_C = 500\text{ mA}$	—	—	1.0	V
Transition frequency	f_T	$V_{CE} = 5\text{ V}, I_C = 100\text{ mA}$	—	120	—	MHz
Collector output capacitance	C_{ob}	$V_{CB} = 10\text{ V}, I_E = 0, f = 1\text{ MHz}$	—	—	30	pF

Note: h_{FE} classification O: 80 to 160, Y: 120 to 240

Marking





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