

TOSHIBA Transistor Silicon NPN Epitaxial Type (PCT Process)

2SC2705

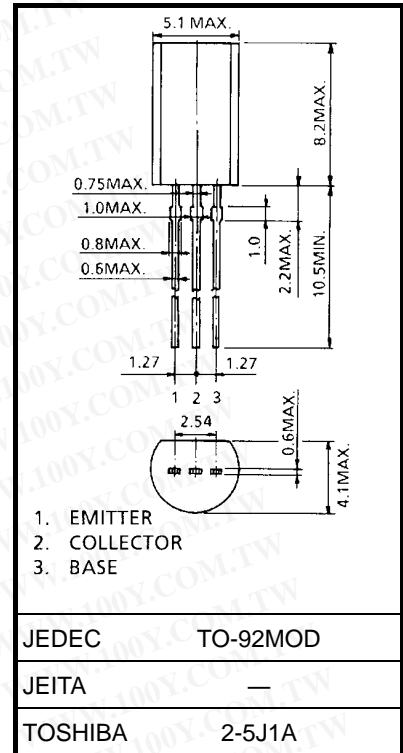
Audio Frequency Amplifier Applications

- Small collector output capacitance: $C_{ob} = 1.8 \text{ pF}$ (typ.)
- High transition frequency: $f_T = 200 \text{ MHz}$ (typ.)
- Complementary to 2SA1145.

Unit: mm

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

Characteristics	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	150	V
Collector-emitter voltage	V_{CEO}	150	V
Emitter-base voltage	V_{EBO}	5	V
Collector current	I_C	50	mA
Base current	I_B	5	mA
Collector power dissipation	P_C	800	mW
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature range	T_{stg}	-55 to 150	$^\circ\text{C}$



Weight: 0.36 g (typ.)

Note1: 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).

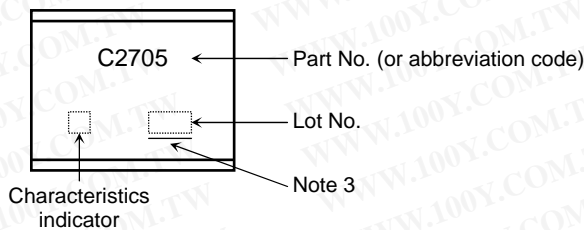
勝特力材料 886-3-5753170
胜特力电子(上海) 86-21-34970699
胜特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

Electrical Characteristics (Ta = 25°C)

Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Collector cut-off current	I_{CBO}	$V_{CB} = 150\text{ V}, I_E = 0$	—	—	0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 5\text{ V}, I_C = 0$	—	—	0.1	μA
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 1\text{ mA}, I_B = 0$	150	—	—	V
DC current gain	h_{FE} (Note 2)	$V_{CE} = 5\text{ V}, I_C = 10\text{ mA}$	80	—	240	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 10\text{ mA}, I_B = 1\text{ mA}$	—	—	1.0	V
Base-emitter voltage	V_{BE}	$V_{CE} = 5\text{ V}, I_C = 10\text{ mA}$	—	—	0.8	V
Transition frequency	f_T	$V_{CE} = 5\text{ V}, I_C = 10\text{ mA}$	—	200	—	MHz
Collector output capacitance	C_{ob}	$V_{CB} = 10\text{ V}, I_E = 0, f = 1\text{ MHz}$	—	1.8	—	pF

Note 2: h_{FE} classification O: 80 to 160, Y: 120 to 240

Marking

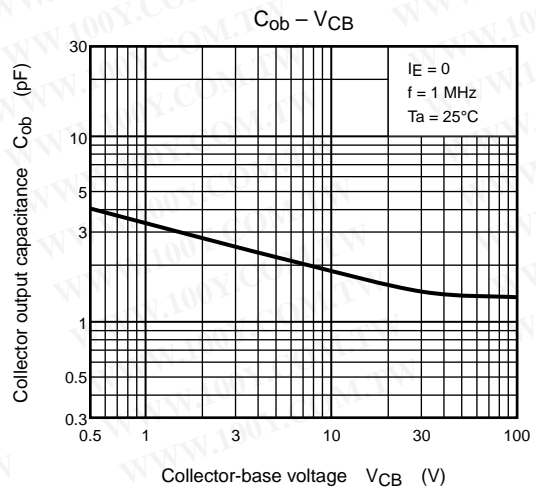
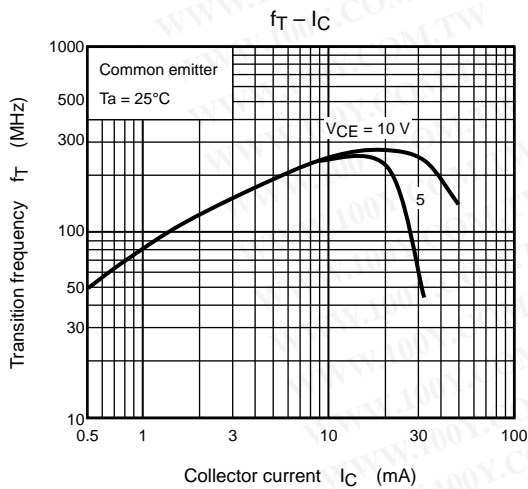
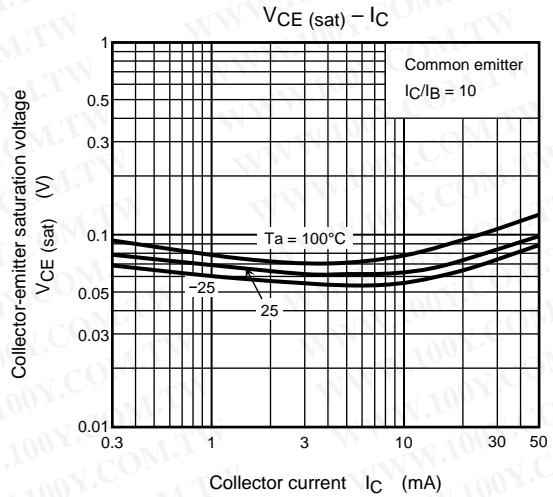
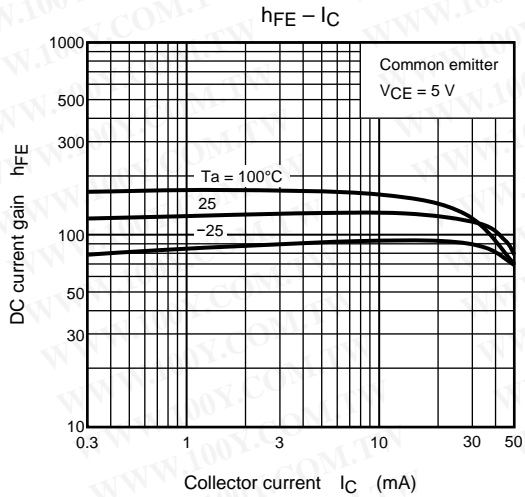
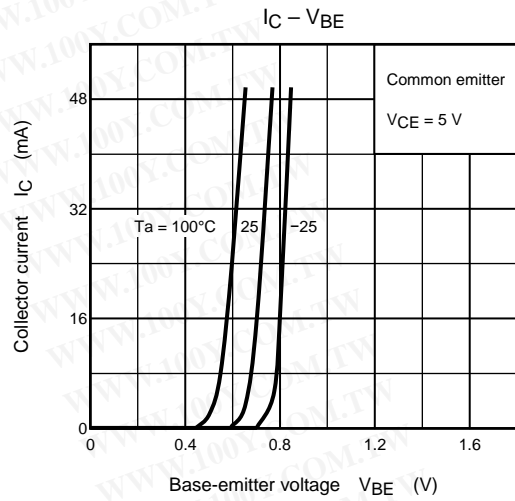
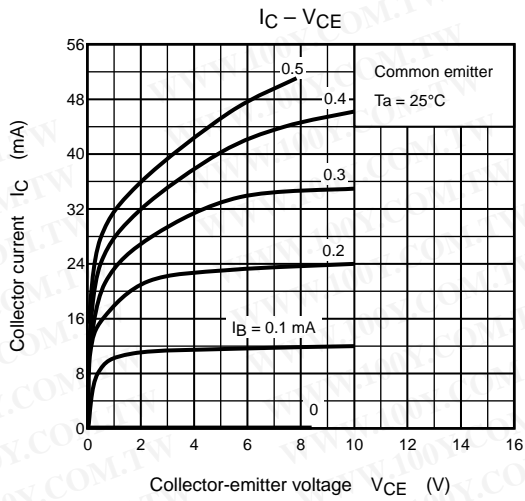


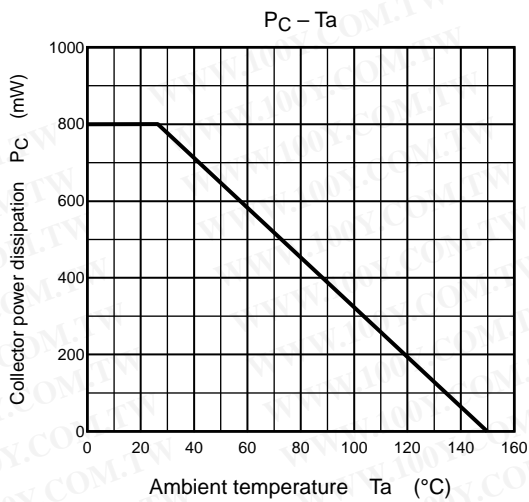
Note 3: A line under a Lot No. identifies the indication of product Labels.

Not underlined: $[[Pb]]/INCLUDES > MCV$

Underlined: $[[G]]/RoHS\ COMPATIBLE$ or $[[G]]/RoHS\ [[Pb]]$

Please contact your TOSHIBA sales representative for details as to environmental matters such as the RoHS compatibility of Product. The RoHS is the Directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment.





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