

TOSHIBA Transistor Silicon PNP Epitaxial Type (PCT process)

## 2SA817

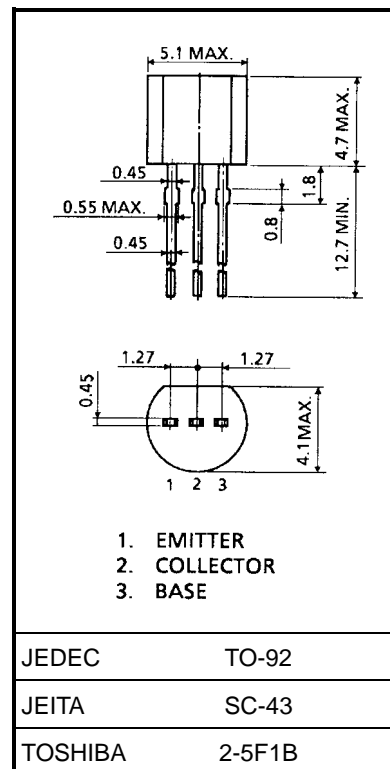
## Audio Frequency Amplifier Applications

Unit: mm

- Complementary to 2SC1627.
- Suitable for driver of 20~25 watts audio amplifiers.

## Maximum Ratings (Ta = 25°C)

Characteristics	Symbol	Rating	Unit
Collector-base voltage	$V_{CBO}$	-80	V
Collector-emitter voltage	$V_{CEO}$	-80	V
Emitter-base voltage	$V_{EBO}$	-5	V
Collector current	$I_C$	-300	mA
Base current	$I_B$	-60	mA
Collector power dissipation	$P_C$	600	mW
Junction temperature	$T_j$	150	°C
Storage temperature range	$T_{stg}$	-55~150	°C

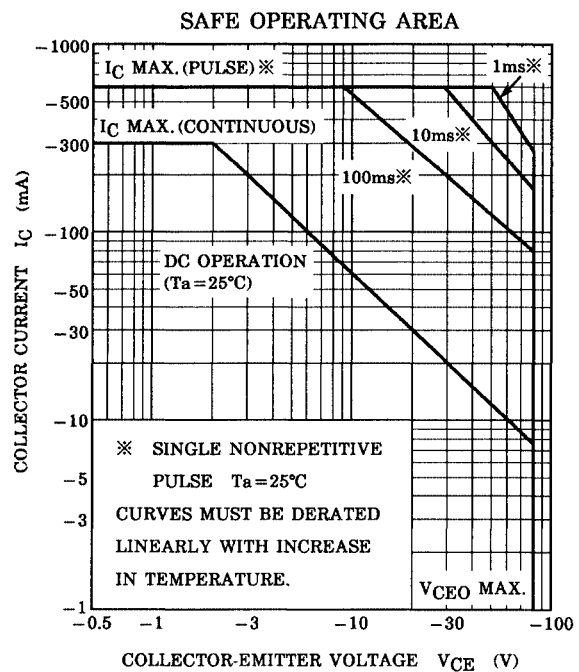
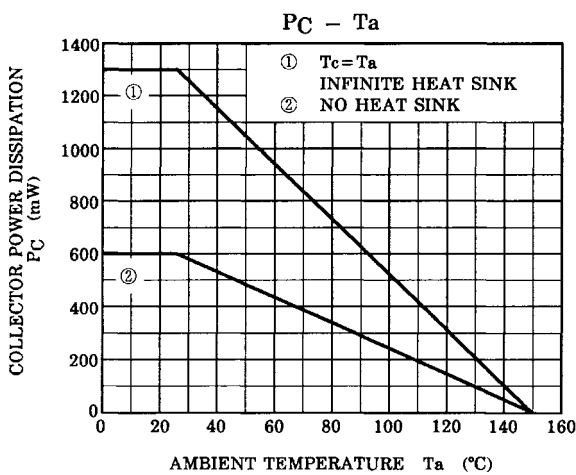
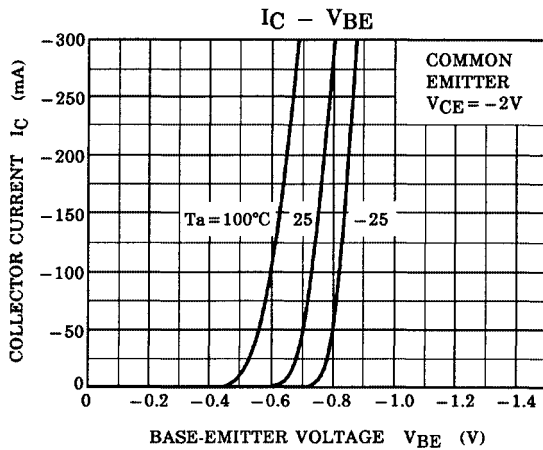
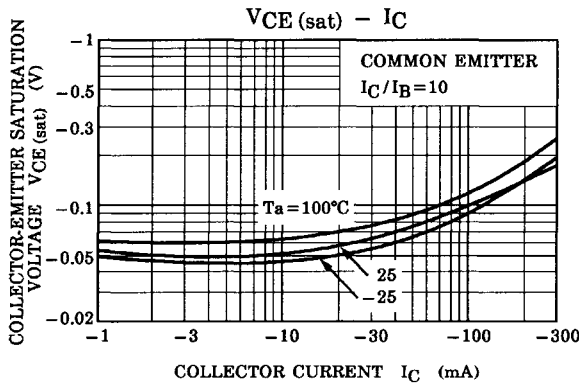
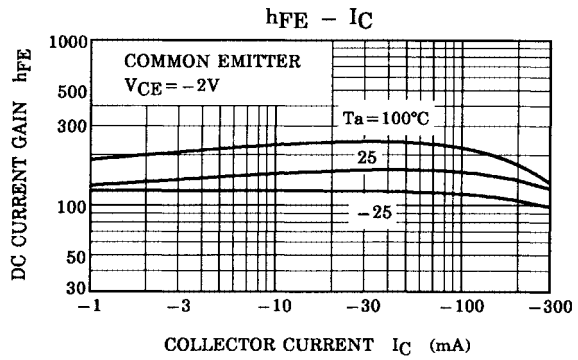
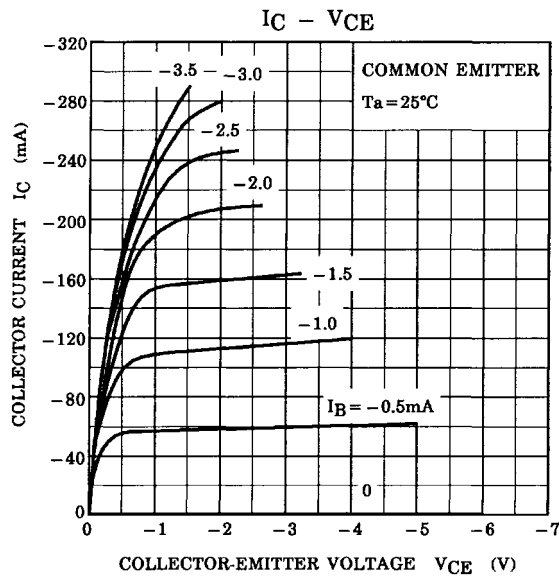


## Electrical Characteristics (Ta = 25°C)

Weight: 0.21 g (typ.)

Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Collector cut-off current	$I_{CBO}$	$V_{CB} = -50\text{ V}, I_E = 0$	—	—	-0.1	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB} = -5\text{ V}, I_C = 0$	—	—	-0.1	$\mu\text{A}$
Collector-emitter breakdown voltage	$V_{(BR) CEO}$	$I_C = -5\text{ mA}, I_B = 0$	-80	—	—	V
DC current gain	$h_{FE (1)}$ (Note)	$V_{CE} = -2\text{ V}, I_C = -50\text{ mA}$	70	—	240	
	$h_{FE (2)}$	$V_{CE} = -2\text{ V}, I_C = -200\text{ mA}$	40	—	—	
Collector-emitter saturation voltage	$V_{CE (sat)}$	$I_C = -200\text{ mA}, I_B = -20\text{ mA}$	—	—	-0.4	V
Base-emitter voltage	$V_{BE}$	$V_{CE} = -2\text{ V}, I_C = -5\text{ mA}$	-0.55	—	-0.8	V
Transition frequency	$f_T$	$V_{CE} = -10\text{ V}, I_C = -10\text{ mA}$	70	100	—	MHz
Collector output capacitance	$C_{ob}$	$V_{CB} = -10\text{ V}, I_E = 0, f = 1\text{ MHz}$	—	14	—	pF

Note:  $h_{FE (1)}$  classification O: 70~140, Y: 120~240



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