

TOSHIBA Transistor Silicon NPN Epitaxial Type (PCT Process)

2SC1627A

Driver-Stage Amplifier Applications
Voltage Amplifier Applications

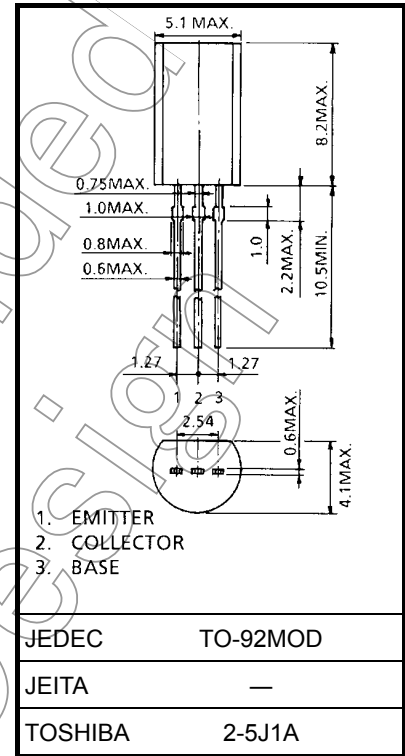
- Complementary to 2SA817A.
- Driver-stage applications for 30- to 35-watt amplifiers.

Absolute 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 _{EB0}	5	V
Collector current	I _C	400	mA
Base current	I _B	40	mA
Collector power dissipation	P _C	800	mW
Junction temperature	T _j	150	°C
Storage temperature range	T _{stg}	-55 to 150	°C

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).

Unit: mm



Weight: 0.36 g (typ.)

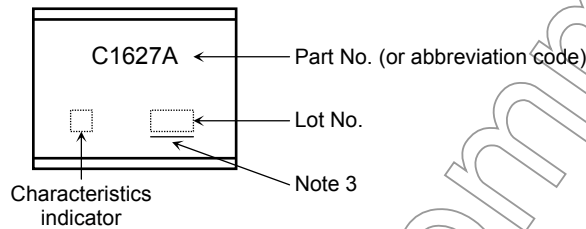
Not for New

Electrical Characteristics (Ta = 25°C)

Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Collector cut-off current	I_{CBO}	$V_{CB} = 50\text{ V}, I_E = 0$	—	—	100	nA
Emitter cut-off current	I_{EBO}	$V_{EB} = 5\text{ V}, I_C = 0$	—	—	100	nA
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 5\text{ mA}$	80	—	—	V
DC current gain	$h_{FE(1)}$ (Note 2)	$V_{CE} = 2\text{ V}, I_C = 50\text{ mA}$	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	$V_{CE} = 10\text{ V}, I_C = 10\text{ mA}$	—	100	—	MHz
Collector output capacitance	C_{ob}	$V_{CB} = 10\text{ V}, f = 1\text{ MHz}$	—	10	—	pF

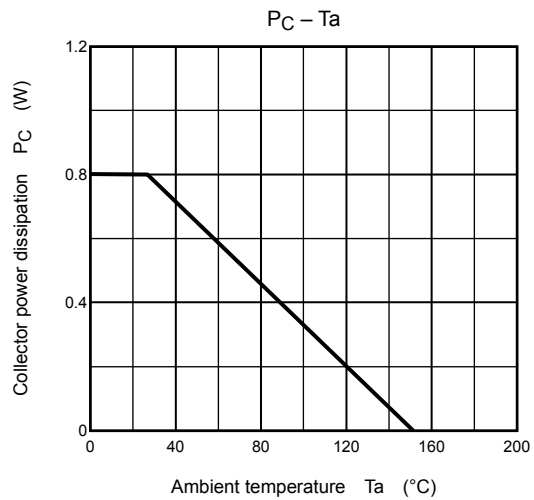
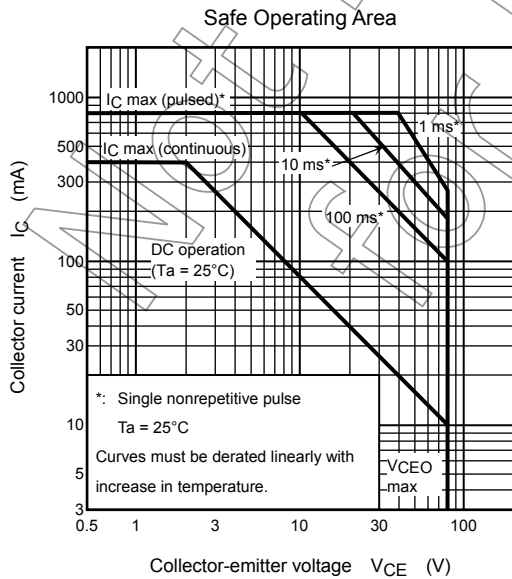
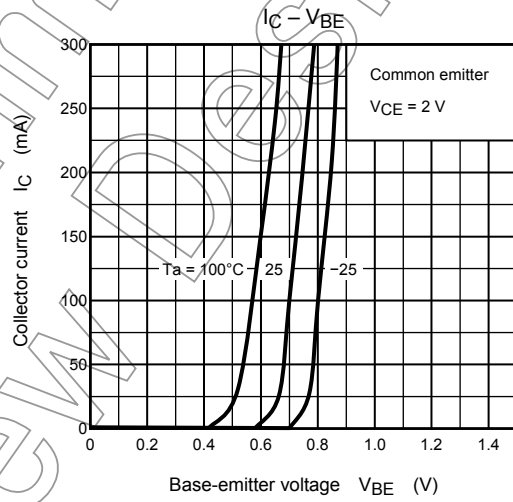
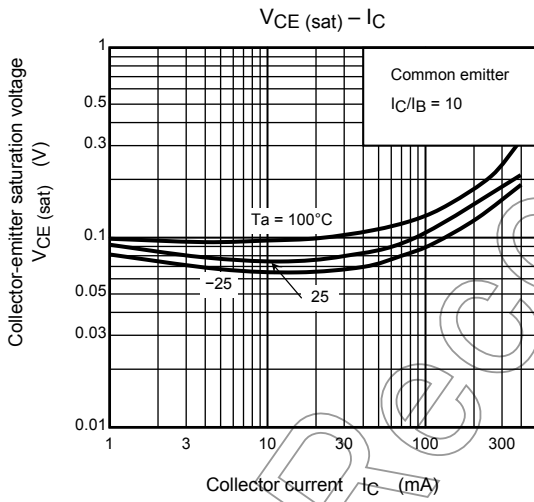
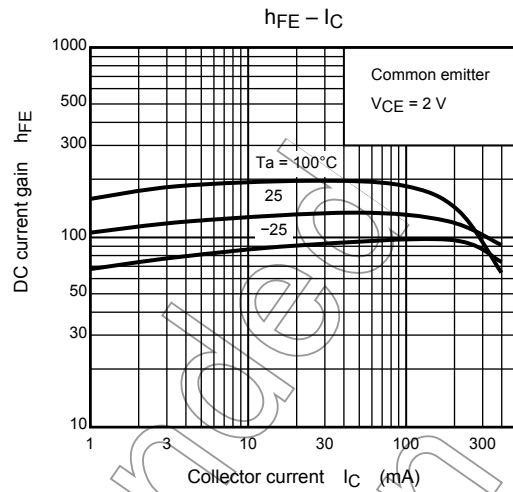
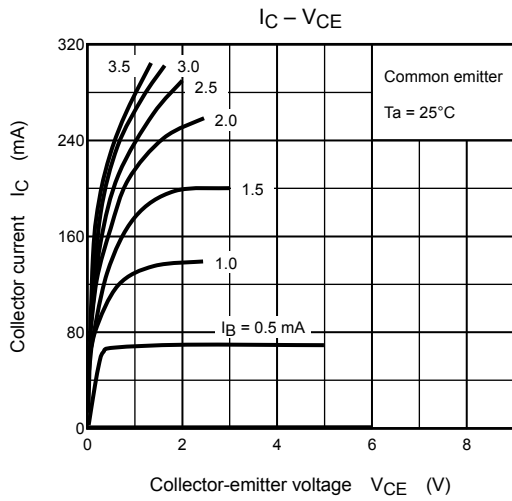
Note 2: $h_{FE(1)}$ classification O: 70 to 140, Y: 120 to 240

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 $[[G]]/RoHS [[Pb]]$

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