

TOSHIBA Transistor Silicon NPN Epitaxial Type (PCT process)

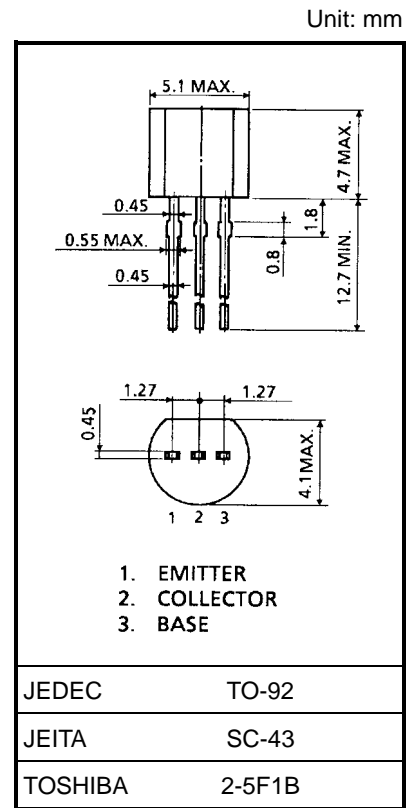
# 2SC1627

Driver Stage Amplifier Applications  
Voltage Amplifier Applications

- Complementary to 2SA817
- Driver stage application of 20 to 25 watts 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	$T_{stg}$	-55~125	°C

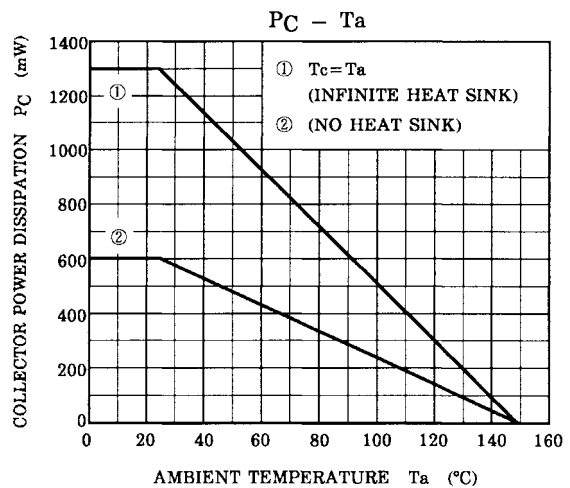
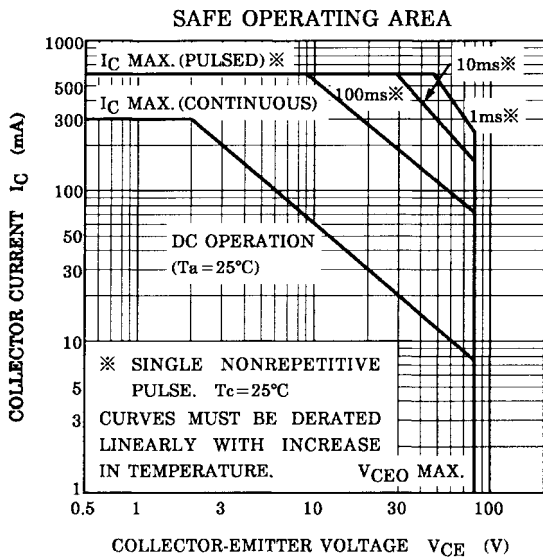
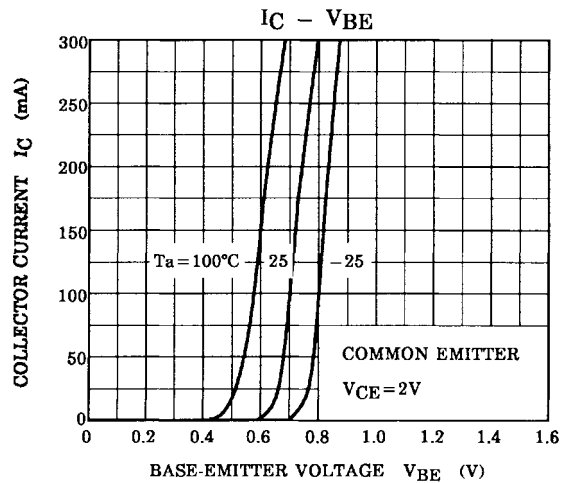
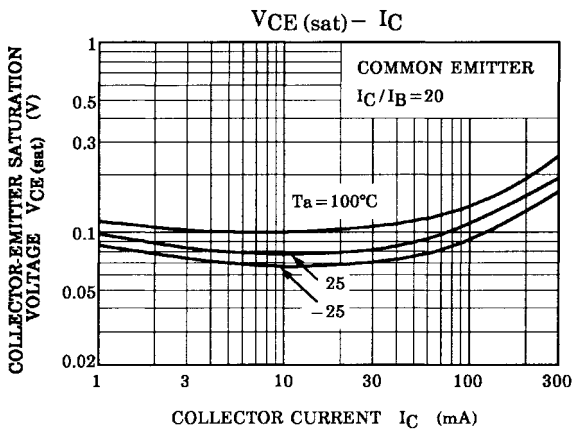
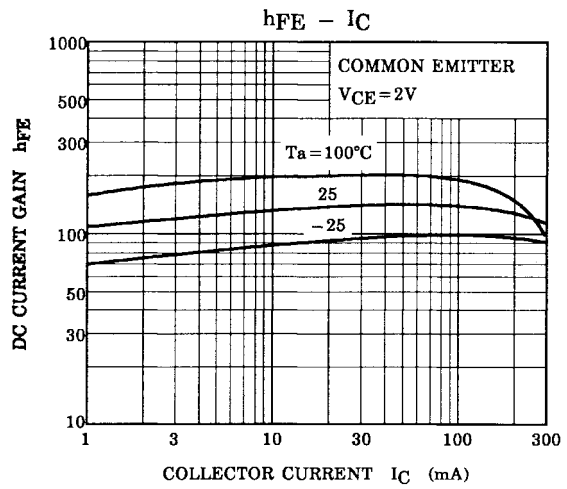
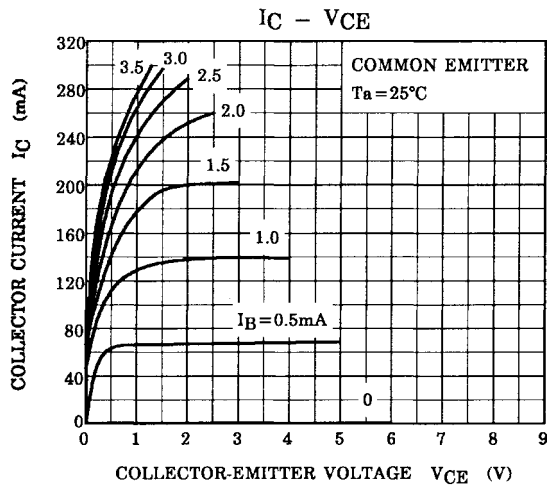


Weight: 0.21 g (typ.)

### Electrical Characteristics (Ta = 25°C)

Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Collector cut-off current	$I_{CBO}$	$V_{CB} = 50\text{ V}, I_E = 0$	—	—	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 saturation 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	$V_{CE(sat)}$	$I_C = 200\text{ mA}, I_B = 10\text{ mA}$	—	—	0.5	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	$C_{ob}$	$V_{CB} = 10\text{ V}, I_E = 0, f = 1\text{ MHz}$	—	10	—	pF

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



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