

TOSHIBA Transistor Silicon NPN Epitaxial Type

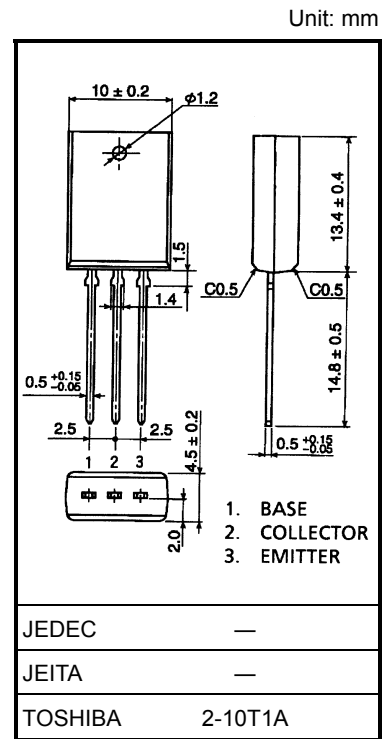
# 2SC5174

Power Amplifier Applications  
 Driver Stage Amplifier Applications

- High transition frequency:  $f_T = 100 \text{ MHz (typ.)}$
- Complementary to 2SA1932

### Maximum Ratings (Ta = 25°C)

Characteristics	Symbol	Rating	Unit
Collector-base voltage	$V_{CB0}$	230	V
Collector-emitter voltage	$V_{CEO}$	230	V
Emitter-base voltage	$V_{EBO}$	5	V
Collector current	$I_C$	1	A
Base current	$I_B$	0.1	A
Collector power dissipation	$P_C$	1.8	W
Junction temperature	$T_j$	150	°C
Storage temperature range	$T_{stg}$	-55 to 150	°C

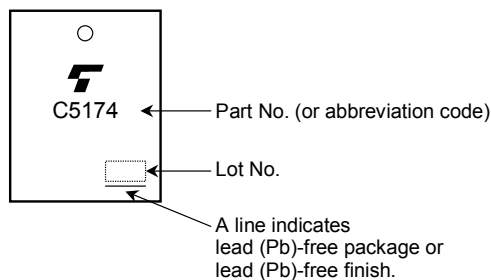


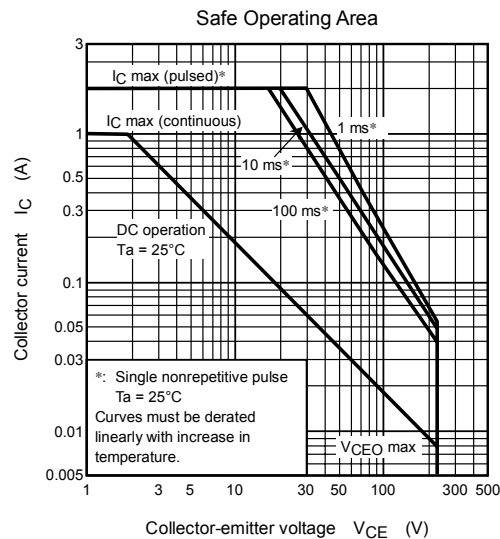
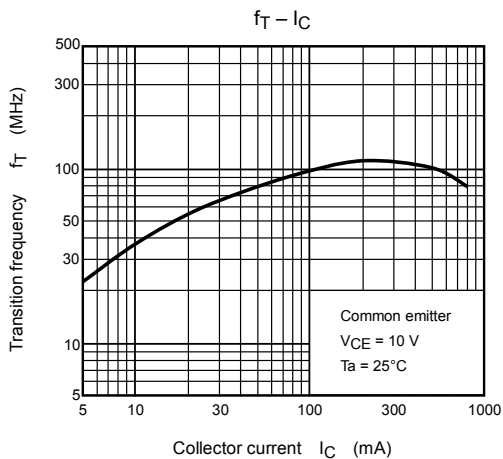
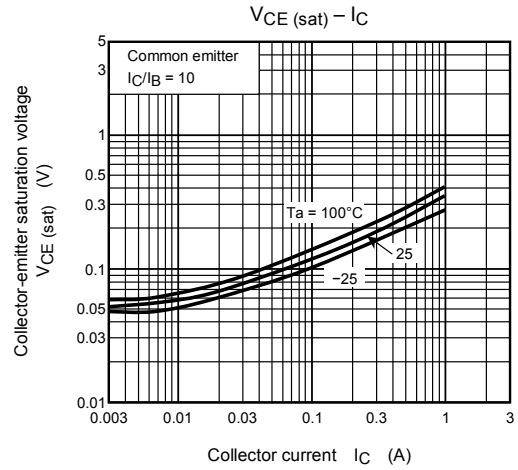
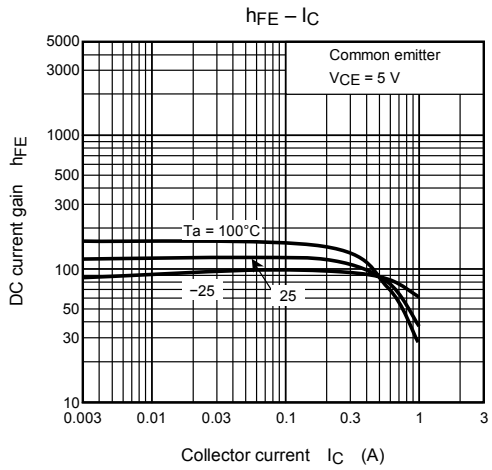
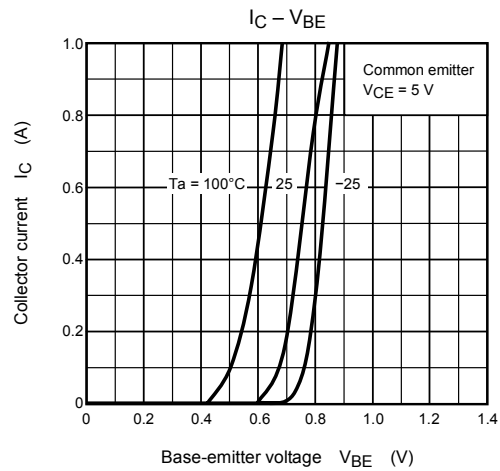
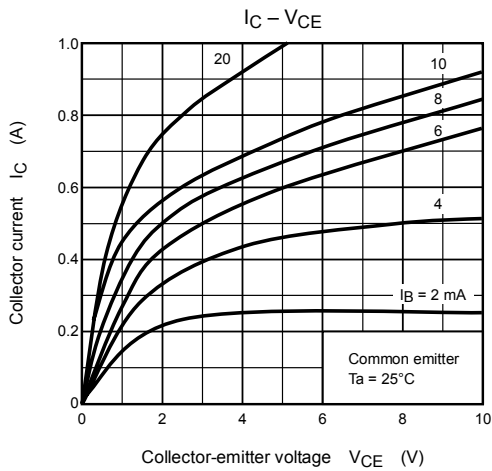
Weight: 1.5 g (typ.)

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

Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Collector cut-off current	$I_{CB0}$	$V_{CB} = 230 \text{ V}, I_E = 0$	—	—	1.0	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB} = 5 \text{ V}, I_C = 0$	—	—	1.0	$\mu\text{A}$
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 10 \text{ mA}, I_B = 0$	230	—	—	V
DC current gain	$h_{FE}$	$V_{CE} = 5 \text{ V}, I_C = 100 \text{ mA}$	100	—	320	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 500 \text{ mA}, I_B = 50 \text{ mA}$	—	—	1.5	V
Base-emitter voltage	$V_{BE}$	$V_{CE} = 5 \text{ V}, I_C = 500 \text{ mA}$	—	—	1.0	V
Transition frequency	$f_T$	$V_{CE} = 10 \text{ V}, I_C = 100 \text{ mA}$	—	100	—	MHz
Collector output capacitance	$C_{ob}$	$V_{CB} = 10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$	—	20	—	pF

### Marking





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