

TOSHIBA TRANSISTOR SILICON NPN EPITAXIAL TYPE

# 2SC5174

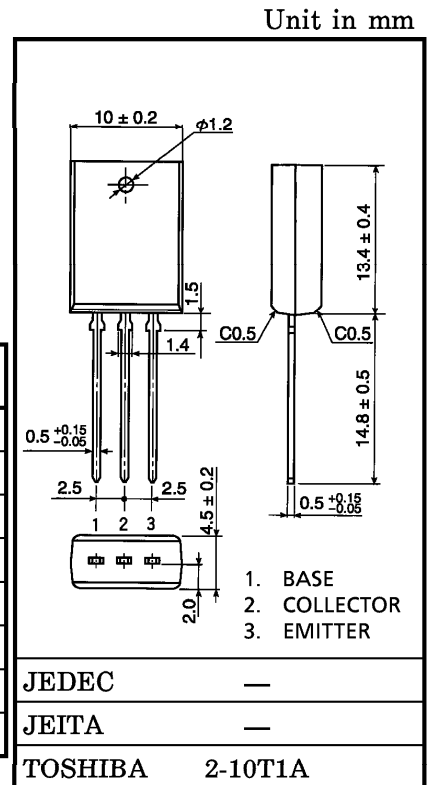
POWER AMPLIFIER APPLICATIONS

DRIVER STAGE AMPLIFIER APPLICATIONS

- High Transition Frequency :  $f_T=100\text{MHz}$  (Typ.)
- Complementary to 2SA1932

MAXIMUM RATINGS ( $T_a = 25^\circ\text{C}$ )

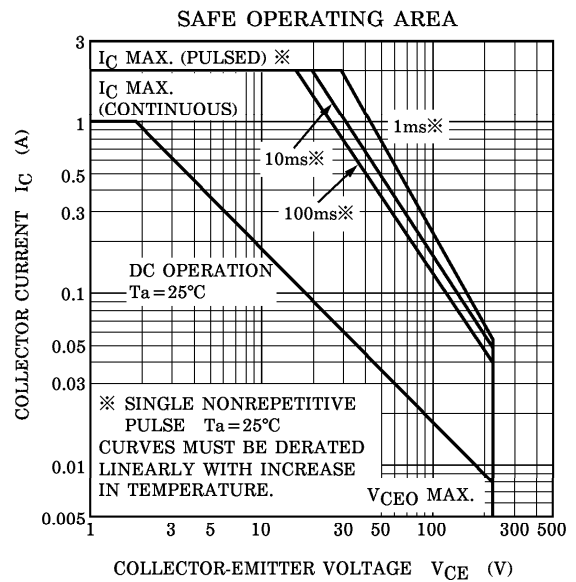
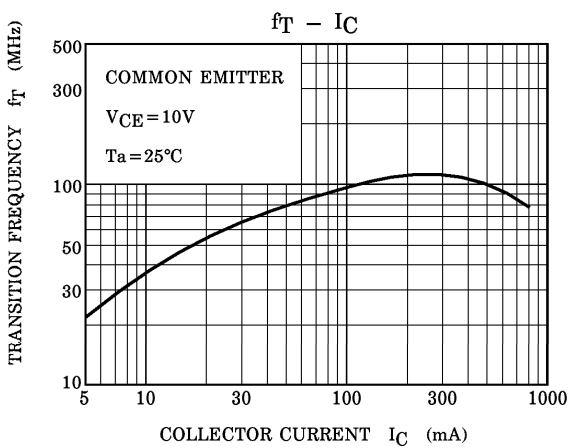
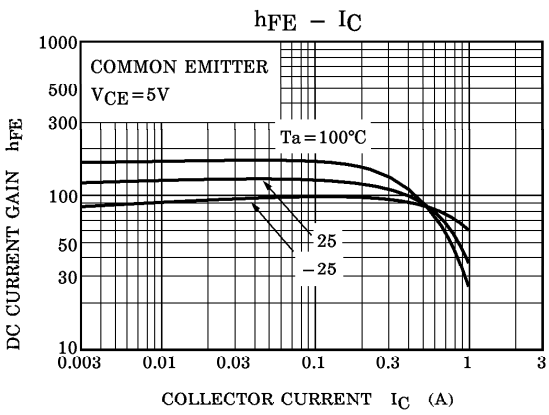
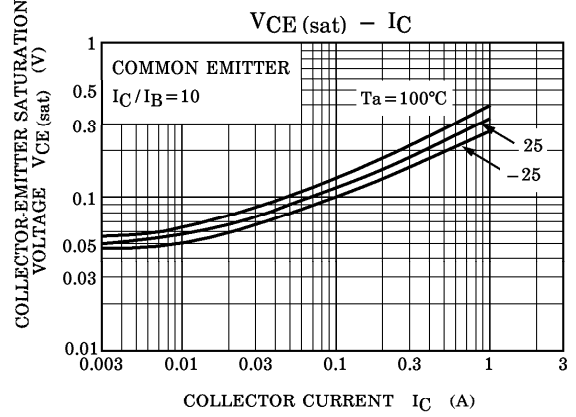
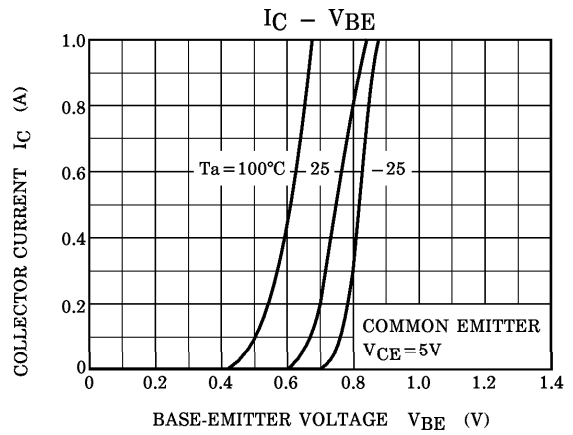
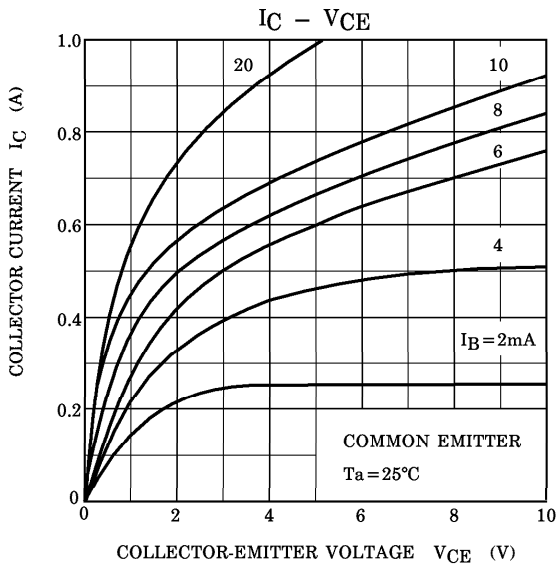
CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	$V_{CB0}$	230	V
Collector-Emitter Voltage	$V_{CEO}$	230	V
Emitter-Base Voltage	$V_{EB0}$	5	V
Collector Current	$I_C$	1	A
Base Current	$I_B$	0.1	A
Collector Power Dissipation	$P_C$	1.8	W
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	-55~150	$^\circ\text{C}$



Weight : 1.5g (Typ.)

ELECTRICAL CHARACTERISTICS ( $T_a = 25^\circ\text{C}$ )

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{CBO}$	$V_{CB} = 230\text{V}, I_E = 0$	—	—	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



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