

TOSHIBA TRANSISTOR SILICON NPN EPITAXIAL TYPE

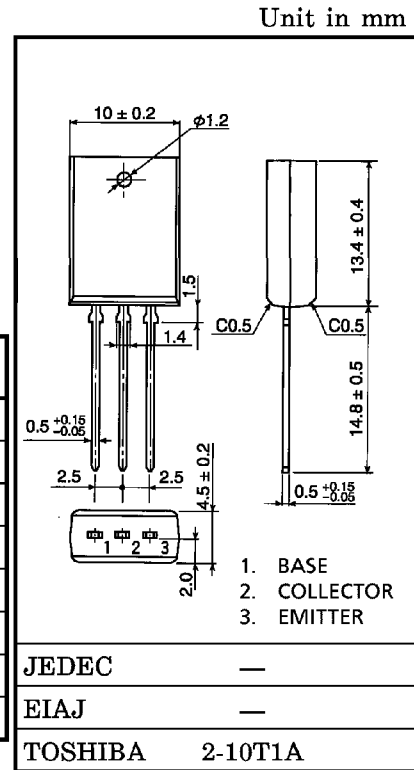
2SC5174

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_{CBO}	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	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55~150	$^\circ\text{C}$



Weight : 1.5g

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	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=5\text{V}, I_C=0$	—	—	1.0	μA
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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