

TOSHIBA TRANSISTOR SILICON NPN TRIPLE DIFFUSED TYPE

2SC5197

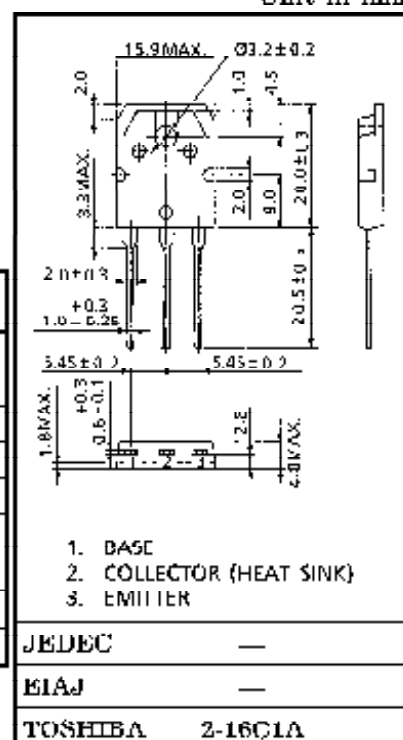
POWER AMPLIFIER APPLICATIONS

- Complementary to 2SA1940
- Recommend for 55W High Fidelity Audio Frequency Amplifier Output Stage.

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CB0}	120	V
Collector-Emitter Voltage	V_{CE0}	120	V
Emitter-Base Voltage	V_{EB0}	6	V
Collector Current	I_C	8	A
Base Current	I_B	0.8	A
Collector Power Dissipation ($T_c = 25^\circ\text{C}$)	P_C	80	W
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	$-55 \sim 150$	$^\circ\text{C}$

Unit in mm



JEDEC	—
EIAJ	—
TOSHIBA	2-16C1A

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

Weight : 4.7g (Typ.)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB} = 120\text{V}, I_E = 0$	—	—	5.0	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB} = 5\text{V}, I_C = 0$	—	—	5.0	μA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 50\text{mA}, I_B = 0$	190	—	—	V
DC Current Gain	$h_{FE}(1)$ (Note)	$V_{CE} = 5\text{V}, I_C = 1\text{A}$	55	—	160	
	$h_{FE}(2)$	$V_{CE} = 5\text{V}, I_C = 4\text{A}$	35	75	—	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 6\text{A}, I_B = 0.6\text{A}$	—	0.86	2.0	V
Base-Emitter Voltage	V_{BE}	$V_{CE} = 5\text{V}, I_C = 4\text{A}$	—	0.95	1.5	V
Transition Frequency	f_T	$V_{CE} = 5\text{V}, I_C = 1\text{A}$	—	30	—	MHz
Collector Output Capacitance	C_{ob}	$V_{CB} = 10\text{V}, I_E = 0, f = 1\text{MHz}$	—	120	—	pF

Note : $h_{FE}(1)$ Classification R : 55~110, O : 80~160

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