

TOSHIBA TRANSISTOR SILICON NPN TRIPLE DIFFUSED TYPE

# 2SC5198

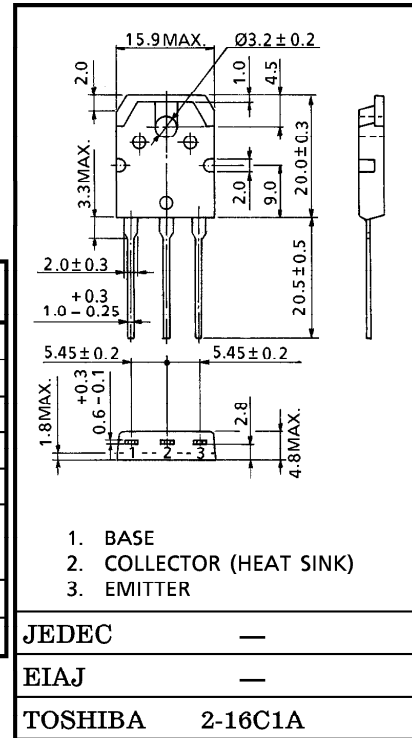
POWER AMPLIFIER APPLICATIONS

Unit in mm

- Complementary to 2SA1941
- Recommend for 70W High Fidelity Audio Frequency Amplifier Output Stage.

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V <sub>CB0</sub>	140	V
Collector-Emitter Voltage	V <sub>CEO</sub>	140	V
Emitter-Base Voltage	V <sub>EBO</sub>	5	V
Collector Current	I <sub>C</sub>	10	A
Base Current	I <sub>B</sub>	1	A
Collector Power Dissipation (Tc = 25°C)	P <sub>C</sub>	100	W
Junction Temperature	T <sub>j</sub>	150	°C
Storage Temperature Range	T <sub>stg</sub>	-55~150	°C



ELECTRICAL CHARACTERISTICS (Ta = 25°C)

Weight : 4.7g (Typ.)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I <sub>CB0</sub>	V <sub>CB</sub> = 140V, I <sub>E</sub> = 0	—	—	5.0	μA
Emitter Cut-off Current	I <sub>EBO</sub>	V <sub>EB</sub> = 5V, I <sub>C</sub> = 0	—	—	5.0	μA
Collector-Emitter Breakdown Voltage	V <sub>(BR) CEO</sub>	I <sub>C</sub> = 50mA, I <sub>B</sub> = 0	140	—	—	V
DC Current Gain	h <sub>FE</sub> (1) (Note)	V <sub>CE</sub> = 5V, I <sub>C</sub> = 1A	55	—	160	
	h <sub>FE</sub> (2)	V <sub>CE</sub> = 5V, I <sub>C</sub> = 5A	35	83	—	
Collector-Emitter Saturation Voltage	V <sub>CE (sat)</sub>	I <sub>C</sub> = 7A, I <sub>B</sub> = 0.7A	—	0.3	2.0	V
Base-Emitter Voltage	V <sub>BE</sub>	V <sub>CE</sub> = 5V, I <sub>C</sub> = 5A	—	0.9	1.5	V
Transition Frequency	f <sub>T</sub>	V <sub>CE</sub> = 5V, I <sub>C</sub> = 1A	—	30	—	MHz
Collector Output Capacitance	C <sub>ob</sub>	V <sub>CB</sub> = 10V, I <sub>E</sub> = 0, f = 1MHz	—	170	—	pF

Note : h<sub>FE</sub> (1) Classification R : 55~110, O : 80~160

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