

**TOSHIBA**

**2SA817**

TOSHIBA TRANSISTOR SILICON PNP EPITAXIAL TYPE (PCT PROCESS)

# 2SA817

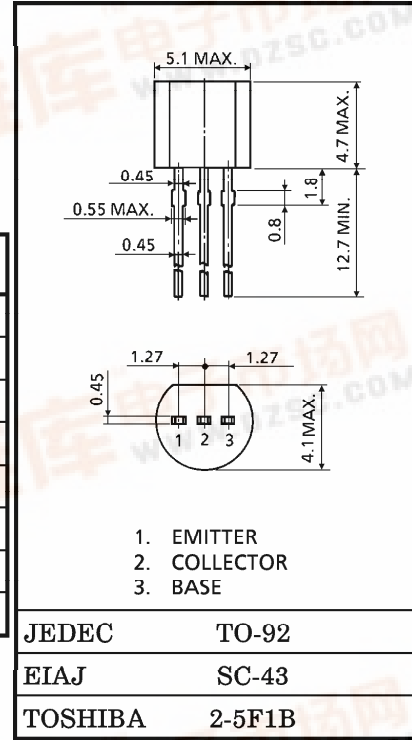
AUDIO FREQUENCY AMPLIFIER APPLICATIONS

Unit in mm

- Complementary to 2SC1627.
- Suitable for driver of 20~25 watts audio amplifier.

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V <sub>CB0</sub>	-80	V
Collector-Emitter Voltage	V <sub>CEO</sub>	-80	V
Emitter-Base Voltage	V <sub>EBO</sub>	-5	V
Collector Current	I <sub>C</sub>	-300	mA
Base Current	I <sub>B</sub>	-60	mA
Collector Power Dissipation	P <sub>C</sub>	600	mW
Junction Temperature	T <sub>j</sub>	150	°C
Storage Temperature Range	T <sub>stg</sub>	-55~150	°C



ELECTRICAL CHARACTERISTICS (Ta = 25°C)

Weight : 0.21g

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I <sub>CBO</sub>	V <sub>CB</sub> = -50V, I <sub>E</sub> = 0	—	—	-0.1	μA
Emitter Cut-off Current	I <sub>EBO</sub>	V <sub>EB</sub> = -5V, I <sub>C</sub> = 0	—	—	-0.1	μA
Collector-Emitter Breakdown Voltage	V <sub>(BR)CEO</sub>	I <sub>C</sub> = -5mA, I <sub>B</sub> = 0	-80	—	—	V
DC Current Gain	h <sub>FE</sub> (1) (Note)	V <sub>CE</sub> = -2V, I <sub>C</sub> = -50mA	70	—	240	V
	h <sub>FE</sub> (2)	V <sub>CE</sub> = -2V, I <sub>C</sub> = -200mA	40	—	—	
Collector-Emitter Saturation Voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> = -200mA, I <sub>B</sub> = -20mA	—	—	-0.4	V
Base-Emitter Voltage	V <sub>BE</sub>	V <sub>CE</sub> = -2V, I <sub>C</sub> = -5mA	-0.55	—	-0.8	V
Transition Frequency	f <sub>T</sub>	V <sub>CE</sub> = -10V, I <sub>C</sub> = -10mA	70	100	—	MHz
Collector Output Capacitance	C <sub>ob</sub>	V <sub>CB</sub> = -10V, I <sub>E</sub> = 0, f = 1MHz	—	14	—	pF

Note : h<sub>FE</sub>(1) Classification, O : 70~140, Y : 120~240

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