

TOSHIBA Transistor Silicon NPN Triple Diffused Type

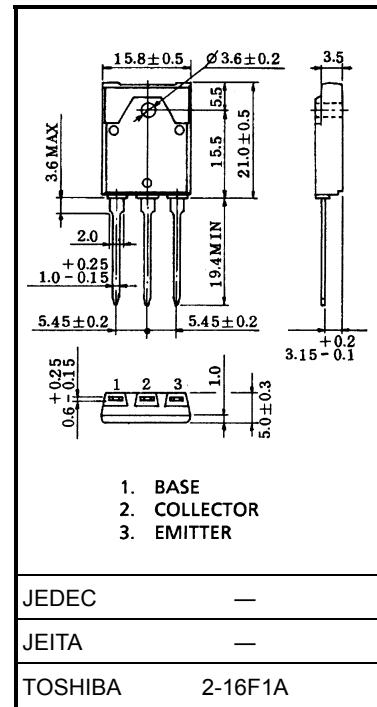
# 2SC4688

## Power Amplifier Applications

- Complementary to 2SA1803
- Suitable for use in 40-W high fidelity audio amplifier's output stage

## Maximum Ratings (Tc = 25°C)

Characteristics	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	DC	I <sub>C</sub>	A
	Pulse	I <sub>CP</sub>	
Base current	I <sub>B</sub>	0.6	A
Collector power dissipation (Tc = 25°C)	P <sub>C</sub>	55	W
Junction temperature	T <sub>j</sub>	150	°C
Storage temperature range	T <sub>stg</sub>	-55 to 150	°C



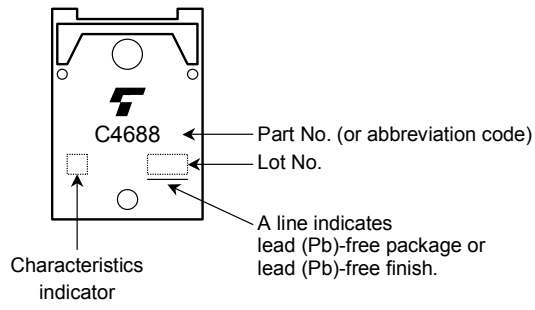
Weight: 5.8 g (typ.)

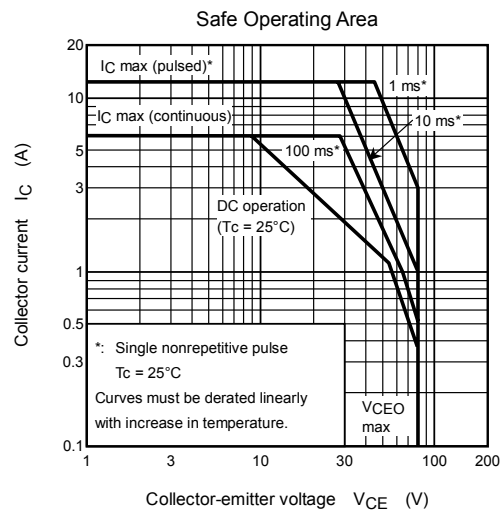
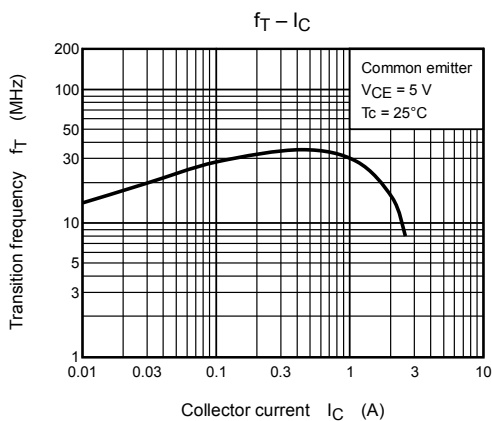
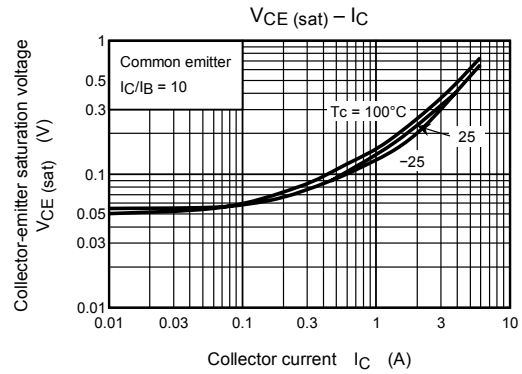
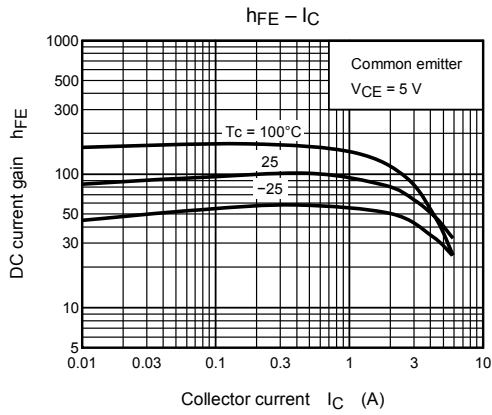
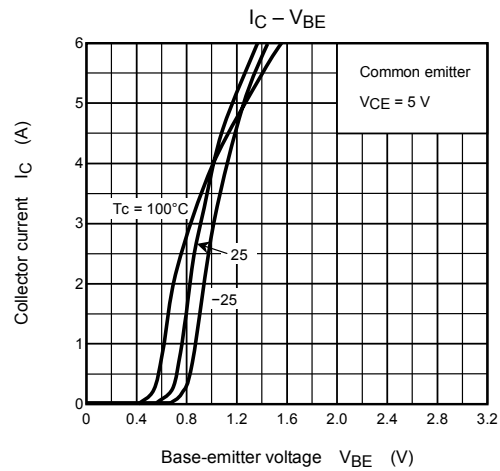
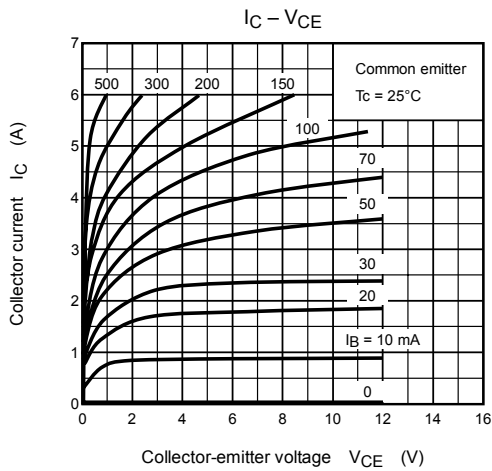
## Electrical Characteristics (Tc = 25°C)

Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Collector cut-off current	I <sub>CB0</sub>	V <sub>CB</sub> = 80 V, I <sub>E</sub> = 0	—	—	5.0	μA
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> = 5 V, I <sub>C</sub> = 0	—	—	5.0	μA
Collector-emitter breakdown voltage	V <sub>(BR) CEO</sub>	I <sub>C</sub> = 50 mA, I <sub>B</sub> = 0	80	—	—	V
DC current gain	h <sub>FE</sub> (1) (Note)	V <sub>CE</sub> = 5 V, I <sub>C</sub> = 1 A	55	—	160	
	h <sub>FE</sub> (2)	V <sub>CE</sub> = 5 V, I <sub>C</sub> = 3 A	35	75	—	
Collector-emitter saturation voltage	V <sub>CE (sat)</sub>	I <sub>C</sub> = 5 A, I <sub>B</sub> = 0.5 A	—	0.45	2.0	V
Base-emitter voltage	V <sub>BE</sub>	V <sub>CE</sub> = 5 V, I <sub>C</sub> = 3 A	—	0.92	1.5	V
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> = 5 V, I <sub>C</sub> = 1 A	—	30	—	MHz
Collector output capacitance	C <sub>ob</sub>	V <sub>CB</sub> = 10 V, I <sub>E</sub> = 0, f = 1 MHz	—	105	—	pF

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

## Marking





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