TOSHIBA Transistor Silicon NPN Epitaxial Type (PCT Process)

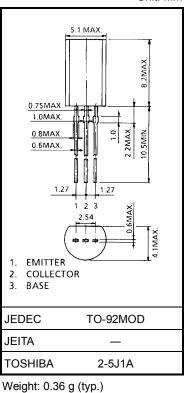
# 2SC4682

Strobe Flash Applications Medium Power Amplifier Applications

- Excellent hFE linearity: hFE (1) = 800 to 3200 (VCE = 1 V, IC = 0.5 A): hFE (2) = 500 (typ.) (VCE = 1 V, IC = 3 A)
- Low saturation voltage: V<sub>CE</sub> (sat) = 0.5 V (max) (I<sub>C</sub> = 3 A, I<sub>B</sub> = 30 mA)

#### Maximum Ratings (Ta = 25°C)

Characteristics		Symbol	Rating	Unit	
Collector-base voltage		V <sub>CBO</sub>	30	V	
Collector-emitter voltage		V <sub>CES</sub>	30	V	
		V (BR) CEO	15		
Emitter-base voltage		V <sub>EBO</sub>	6	V	
Collector current	DC	Ι <sub>C</sub>	3	А	
	Pulse	I <sub>CP</sub>	6	~	
Base current		Ι <sub>Β</sub>	0.8	А	
Collector power dissipation		P <sub>C</sub>	900	mW	
Junction temperature		Тј	150	°C	
Storage temperature range		T <sub>stg</sub>	-55 to 150	°C	



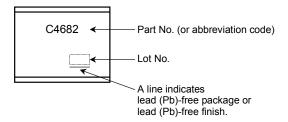
### **Electrical Characteristics (Ta = 25°C)**

Characteristics	Symbol	Test Condition	Min	Тур.	Max	Unit
Collector cut-off current	I <sub>CBO</sub>	V <sub>CB</sub> = 30 V, I <sub>E</sub> = 0	—	_	1	μA
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> = 6 V, I <sub>C</sub> = 0	_	_	10	μA
Collector-emitter breakdown voltage	V (BR) CEO	I <sub>C</sub> = 10 mA, I <sub>B</sub> = 0	15	—	—	V
DC current gain	h <sub>FE (1)</sub>	V <sub>CE</sub> = 1 V, I <sub>C</sub> = 0.5 A	800	_	3200	
	h <sub>FE (2)</sub>	V <sub>CE</sub> = 1 V, I <sub>C</sub> = 3 A	300	500	_	
Collector-emitter saturation voltage	V <sub>CE (sat)</sub>	I <sub>C</sub> = 3 A, I <sub>B</sub> = 30 mA	_	0.25	0.5	V
Base-emitter voltage	V <sub>BE</sub>	V <sub>CE</sub> = 1 V, I <sub>C</sub> = 3 A	_	0.85	1.2	V
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> = 1 V, I <sub>C</sub> = 0.5 A	_	150	_	MHz
Collector output capacitance	Cob	V <sub>CB</sub> = 10 V, I <sub>E</sub> = 0, f = 1 MHz	—	30	_	pF

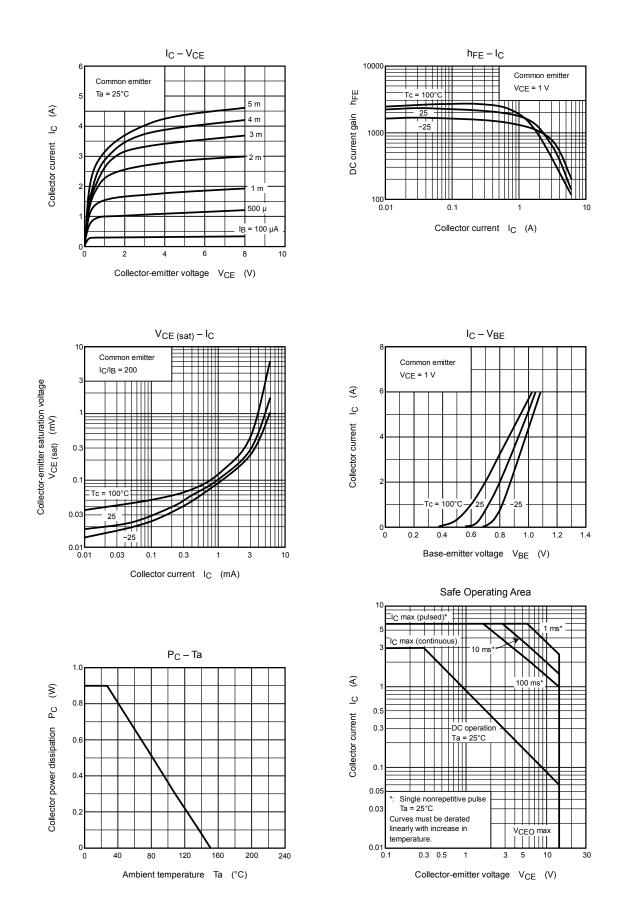
Unit: mm

# **TOSHIBA**

### Marking



## **TOSHIBA**



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