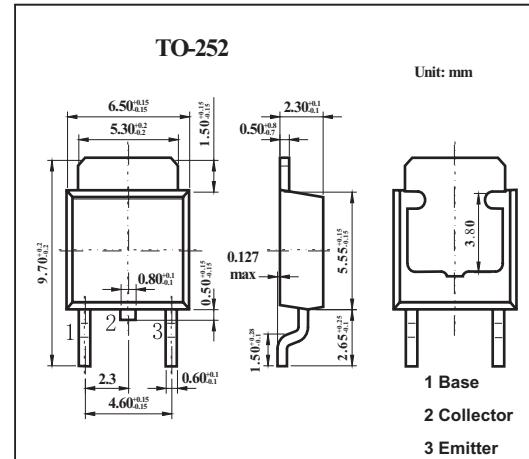


Silicon NPN Epitaxial

2SC4684



■ Features

- High DC current gain.
- Low collector saturation voltage.
- High power dissipation.

■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector-base voltage	V _{CBO}	50	V
Collector-emitter voltage	V _{C EO}	20	V
	V _{C ES}	40	V
Emitter-base voltage	V _{E BO}	8	V
Collector current	I _C	5	A
Collector current pulse *	I _{CP}	8	A
Base current	I _B	0.5	A
Collector power dissipation T _a = 25°C	P _C	1.0	W
T _c = 25°C		10	W
Junction temperature	T _j	150	°C
Storage temperature	T _{stg}	-55 to +150	°C

* Pulse test: Pulse width = 10 ms (max), duty cycle = 30% (max)

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector cut-off current	I _{CBO}	V _{CB} = 50 V, I _E = 0			100	nA
Emitter cut-off current	I _{EBO}	V _{EB} = 8 V, I _C = 0			100	nA
Collector-emitter breakdown voltage	V _{C EO}	I _C = 10 mA, I _B = 0	20			V
DC current gain	h _{FE}	V _{CE} = 2 V, I _C = 0.5 A	800		3200	
		V _{CE} = 2 V, I _C = 4 A	250			
Collector-emitter saturation voltage	V _{C E (sat)}	I _C = 4 A, I _B = 40 mA			0.5	V
Base-emitter voltage	V _{BE}	V _{CE} = 2 V, I _C = 4 A			1.2	V
Transition frequency	f _T	V _{CE} = 2 V, I _C = 0.5 A	150			MHz
Collector output capacitance	C _{ob}	V _{CB} = 10 V, I _E = 0, f = 1 MHz	45			pF

■ Marking

Marking	C4684
---------	-------