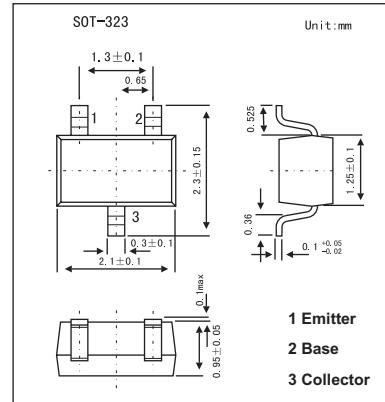


# 2SC4180

## ■ Features

- Small dimension
- High DC current gain



## ■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector-base voltage	V <sub>CBO</sub>	120	V
Collector-emitter voltage	V <sub>C EO</sub>	120	V
Emitter-base voltage	V <sub>EBO</sub>	5	V
Collector current	I <sub>C</sub>	50	mA
Total power dissipation	P <sub>T</sub>	150	mW
Junction temperature	T <sub>j</sub>	150	°C
Storage temperature	T <sub>stg</sub>	-55 to +150	°C

## ■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector cutoff current	I <sub>CB0</sub>	V <sub>CB</sub> = 120V, I <sub>E</sub> =0			0.05	µA
Emitter cutoff current	I <sub>EBO</sub>	V <sub>EB</sub> = 5V, I <sub>C</sub> =0			0.05	µA
DC current gain	h <sub>FE</sub>	V <sub>CE</sub> = 6V , I <sub>C</sub> = 1mA*	135	600	900	
		V <sub>CE</sub> = 6V , I <sub>C</sub> = 0.1mA	100	580		
Collector-emitter saturation voltage *	V <sub>CE(sat)</sub>	I <sub>C</sub> = 10mA , I <sub>B</sub> = 1mA		0.07	0.3	V
Base-emitter voltage *	V <sub>BE</sub>	V <sub>CE</sub> = 6V , I <sub>C</sub> = 1mA	0.55	0.59	0.65	V
Gain bandwidth product	f <sub>T</sub>	V <sub>CE</sub> = 6V , I <sub>E</sub> = -1mA	50	110		MHz
Output capacitance	C <sub>ob</sub>	V <sub>CB</sub> = 30V , I <sub>E</sub> = 0 , f = 1.0MHz		1.6	2.5	pF

\* Pulse test: tp ≤ 350 µs; d ≤ 0.02.

## ■ hFE Classification

Marking	D15	D16	D17	D18
hFE	135~270	200~400	300~600	450~900