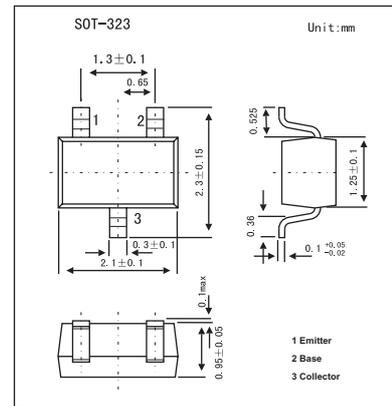


## Silicon NPN Epitaxial Planar Type

## 2SC4755

## ■ Features

- High-speed switching.
- Low collector to emitter saturation voltage  $V_{CE(sat)}$ .

■ Absolute Maximum Ratings  $T_a = 25^\circ\text{C}$ 

Parameter	Symbol	Rating	Unit
Collector-base voltage	$V_{CB0}$	25	V
Collector-emitter voltage	$V_{CE0}$	20	V
Emitter-base voltage	$V_{EB0}$	5	V
Peak collector current	$I_{CP}$	300	mA
Collector current	$I_C$	200	mA
Collector power dissipation	$P_C$	150	mW
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

## 2SC4755

## ■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector cutoff current	ICBO	V <sub>CB</sub> = 10V, I <sub>E</sub> = 0			0.1	μA
Emitter cutoff current	IEBO	V <sub>EB</sub> = 4V, I <sub>C</sub> = 0			0.1	μA
Forward current transfer ratio	hFE	V <sub>CE</sub> = 1V, I <sub>C</sub> = 10mA	40		200	
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> = 10mA, I <sub>B</sub> = 1mA		0.17	0.25	V
Base-emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> = 10mA, I <sub>B</sub> = 1mA		0.76	1.0	V
Transition frequency	f <sub>T</sub>	V <sub>CB</sub> = 10V, I <sub>E</sub> = -10mA, f = 200MHz	200	500		MHz
Collector output capacitance	C <sub>ob</sub>	V <sub>CB</sub> = 10V, I <sub>E</sub> = 0, f = 1MHz		2	4	pF
Turn-on time	t <sub>on</sub>			17		ns
Turn-off time	t <sub>off</sub>			15		ns
Storage time	t <sub>stg</sub>			7		ns

## ■ hFE Classification

Marking	DV		
	P	Q	R
hFE	40~80	60~120	90~200