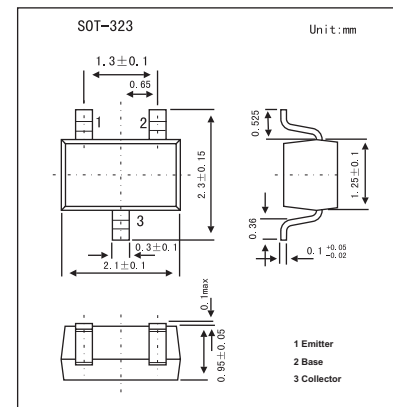


## High-voltage Amplifier Transistor

## 2SC4102

## ■ Features

- High breakdown voltage.( $V_{CE0} = 120V$ )

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

Parameter	Symbol	Rating	Unit
Collector-base voltage	$V_{CBO}$	120	V
Collector-emitter voltage	$V_{CEO}$	120	V
Emitter-base voltage	$V_{EBO}$	5	V
Collector current	$I_C$	50	mA
Collector power dissipation	$P_C$	0.2	W
Junction temperature	$T_j$	150	$^\circ C$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ C$

■ Electrical Characteristics  $T_a = 25^\circ C$ 

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{CBO}$	$I_C=50\mu A$	120			V
Collector-emitter breakdown voltage	$V_{CEO}$	$I_C=1mA$	120			V
Emitter-base breakdown voltage	$V_{EBO}$	$I_E=50\mu A$	5			V
Collector cutoff current	$I_{CBO}$	$V_{CB}=100V$			0.5	$\mu A$
Emitter cutoff current	$I_{EBO}$	$V_{EB}=4V$			0.5	$\mu A$
DC current transfer ratio	$h_{FE}$	$V_{CE}=6V, I_C=2mA$	180		560	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=10mA, I_B=1mA$			0.5	V
Output capacitance	$C_{ob}$	$V_{CB}=12V, I_E=0A, f=1MHz$		2.5		pF
Transition frequency	$f_T$	$V_{CE}=-12V, I_E=2mA, f=100MHz$		140		MHz

■  $h_{FE}$  Classification

Marking	TR	TS
Rank	R	S
$h_{FE}$	180~390	270~560