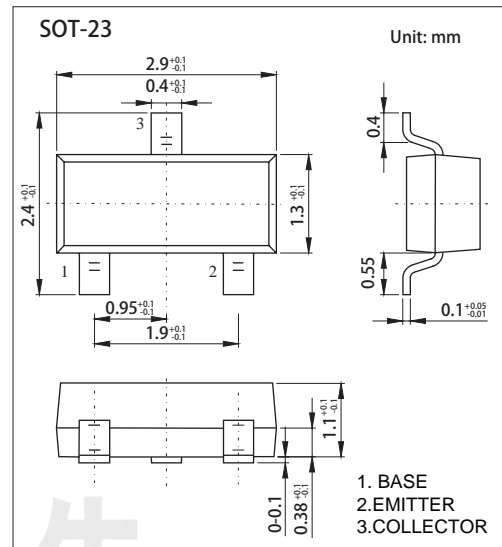


# Transistor

## NPN Transistors S9014

### ■ Features

- Collector current:  $I_c=0.1A$
- Excellent  $h_{FE}$  Linearity.
- Complementary to S9015



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

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	$V_{CB0}$	50	V
Collector - Emitter Voltage	$V_{CE0}$	45	
Emitter - Base Voltage	$V_{EB0}$	5	
Collector Current - Continuous	$I_c$	100	mA
Collector Power Dissipation	$P_c$	200	mW
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	625	$^{\circ}C/W$
Junction Temperature	$T_J$	150	$^{\circ}C$
Storage Temperature	$T_{stg}$	-55 to 150	

# Transistor

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### ■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collecto- base breakdown voltage	V <sub>CB0</sub>	I <sub>C</sub> = 100 μA, I <sub>E</sub> =0	50			V
Collector- emitter breakdown voltage	V <sub>CEO</sub>	I <sub>C</sub> = 0.1 mA, I <sub>B</sub> =0	45			
Emitter - base breakdown voltage	V <sub>EB0</sub>	I <sub>E</sub> = 100 μA, I <sub>C</sub> =0	5			
Collector cut-off current	I <sub>CBO</sub>	V <sub>CB</sub> = 50 V, I <sub>E</sub> =0			0.1	μA
Collector cut-off current	I <sub>CEO</sub>	V <sub>CE</sub> = 35 V, I <sub>B</sub> =0			1	
Emitter cut-off current	I <sub>EB0</sub>	V <sub>EB</sub> = 3V, I <sub>C</sub> =0			0.1	
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =100 mA, I <sub>B</sub> = 5mA			0.3	V
Base - emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> =100 mA, I <sub>B</sub> = 5mA			1	
DC current gain	h <sub>FE</sub>	V <sub>CE</sub> = 5V, I <sub>C</sub> = 1mA	200		1000	
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> = 5V, I <sub>C</sub> = 10mA, f=30MHz	150			MHz

### ■ Classification of hFE

Rank	L	H
Range	200-450	450-1000
Marking	J6	

## NPN Transistors S9014

### Typical Characteristics

