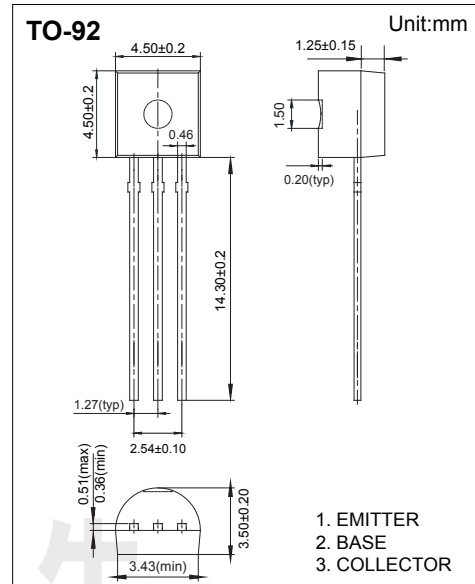


# Transistor

## NPN Transistor S9014

### ■ Features

- High Total Power Dissipation. ( $P_C=0.45W$ )
- High hFE and Good Linearity
- Complementary to S9015



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

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	$V_{CBO}$	50	V
Collector - Emitter Voltage	$V_{CEO}$	45	
Emitter - Base Voltage	$V_{EBO}$	5	
Collector Current - Continuous	$I_C$	0.1	A
Collector Power Dissipation	$P_C$	0.45	W
Junction Temperature	$T_J$	150	$^\circ C$
Storage Temperature	$T_{stg}$	-55 to 150	

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

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collecto- base breakdown voltage	$V_{CBO}$	$I_C = 100 \mu A, I_E = 0$	50			V
Collector- emitter breakdown voltage	$V_{CEO}$	$I_C = 1 mA, I_B = 0$	45			
Emitter - base breakdown voltage	$V_{EBO}$	$I_E = 100 \mu A, I_C = 0$	5			
Collector cut-off current	$I_{CBO}$	$V_{CB} = 50 V, I_E = 0$			0.1	$\mu A$
Collector cut-off current	$I_{CEO}$	$V_{CB} = 35 V, I_B = 0$			1	
Emitter cut-off current	$I_{EBO}$	$V_{EB} = 5 V, I_C = 0$			0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 100 mA, I_B = 5 mA$			0.3	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = 100 mA, I_B = 5 mA$			1	
DC current gain	hFE	$V_{CE} = 5 V, I_C = 1 mA$	60		1000	
Transition frequency	$f_T$	$V_{CE} = 5 V, I_C = 10 mA, f = 30 MHz$	150			MHz

### ■ Classification of hFE

Rank	A	B	C	D
Range	60-150	100-300	200-600	400-1000

# Transistor

## NPN Transistor S9014

### Typical Characteristics

