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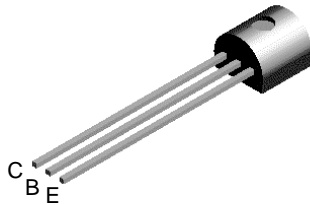
**S9014**

**NPN Silicon  
Transistors**

## Features

- TO-92 Plastic-Encapsulate Transistors
- Capable of 0.4Watts( $T_{amb}=25^{\circ}C$ ) of Power Dissipation.
- Collector-current 0.1A
- Collector-base Voltage 50V
- Operating and storage junction temperature range:  $-55^{\circ}C$  to  $+150^{\circ}C$
- Marking Code: S9014

Pin Configuration



Electrical Characteristics @  $25^{\circ}C$  Unless Otherwise Specified

Symbol	Parameter	Min	Max	Units
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### OFF CHARACTERISTICS

$V_{(BR)CBO}$	Collector-Base Breakdown Voltage ( $I_C=100\mu A$ , $I_E=0$ )	50	---	Vdc
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage ( $I_C=0.1mA$ , $I_B=0$ )	45	---	Vdc
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage ( $I_E=100\mu A$ , $I_C=0$ )	5.0	---	Vdc
$I_{CBO}$	Collector Cutoff Current ( $V_{CB}=50Vdc$ , $I_E=0$ )	---	0.1	$\mu A$
$I_{CEO}$	Collector Cutoff Current ( $V_{CE}=35Vdc$ , $I_B=0$ )	---	0.1	$\mu A$
$I_{EBO}$	Emitter Cutoff Current ( $V_{EB}=3.0Vdc$ , $I_C=0$ )	---	0.1	$\mu A$

### ON CHARACTERISTICS

$h_{FE}$	DC Current Gain ( $I_C=1.0mA$ , $V_{CE}=5.0Vdc$ )	60	1000	---
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage ( $I_C=100mA$ , $I_B=5.0mA$ )	---	0.3	Vdc
$V_{BE(sat)}$	Base-Emitter Saturation Voltage ( $I_C=100mA$ , $I_B=5.0mA$ )	---	1.0	Vdc

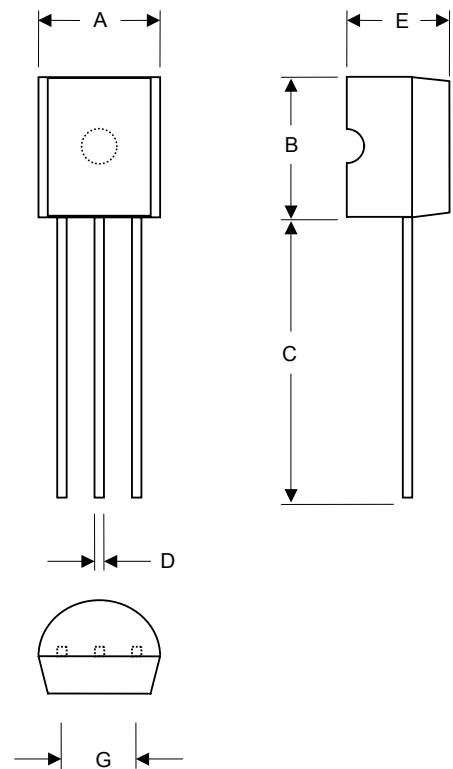
### SMALL-SIGNAL CHARACTERISTICS

$f_T$	Transistor Frequency ( $I_C=10mA$ , $V_{CE}=5.0Vdc$ , $f=30MHz$ )	150	---	MHz
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### CLASSIFICATION OF $h_{FE}$

Rank	B	C	D
Range	120-200	200-400	400-600

TO-92



### DIMENSIONS

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.170	.190	4.33	4.83	
B	.170	.190	4.30	4.83	
C	.550	.590	13.97	14.97	
D	.010	.020	0.36	0.56	
E	.130	.160	3.30	3.96	
G	.010	.104	2.44	2.64	