



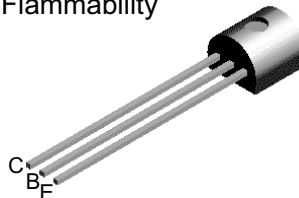
Micro Commercial Components

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**S9018**  
**S9018-G**  
**S9018-H**  
**S9018-I**

## Features

- TO-92 Plastic-Encapsulate Transistors
- Capable of 0.31Watts( $T_{amb}=25^{\circ}C$ ) of Power Dissipation.
- Collector-current 0.05A
- Collector-base Voltage 25V
- Operating and storage junction temperature range:  $-55^{\circ}C$  to  $+150^{\circ}C$
- Marking : S9018
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0



## NPN Silicon Transistors

### Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Max	Units
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#### OFF CHARACTERISTICS

$V_{(BR)CBO}$	Collector-Base Breakdown Voltage ( $I_C=100\mu A$ , $I_E=0$ )	25	---	Vdc
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage ( $I_C=0.1mA$ , $I_B=0$ )	18	---	Vdc
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage ( $I_E=100\mu A$ , $I_C=0$ )	4.0	---	Vdc
$I_{CBO}$	Collector Cutoff Current ( $V_{CB}=20V$ , $I_E=0$ )	---	0.1	$\mu A$
$I_{CEO}$	Collector Cutoff Current ( $V_{CE}=15V$ , $I_B=0$ )	---	0.1	$\mu A$
$I_{EBO}$	Emitter Cutoff Current ( $V_{EB}=3.0V$ , $I_C=0$ )	---	0.1	$\mu A$

#### ON CHARACTERISTICS

$h_{FE}$	DC Current Gain ( $I_C=1.0mA$ , $V_{CE}=5.0V$ )	28	270	---
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage ( $I_C=10mA$ , $I_B=1.0mA$ )	---	0.5	Vdc
$V_{BE(sat)}$	Base-Emitter Saturation Voltage ( $I_C=10mA$ , $I_B=1.0mA$ )	---	1.4	Vdc

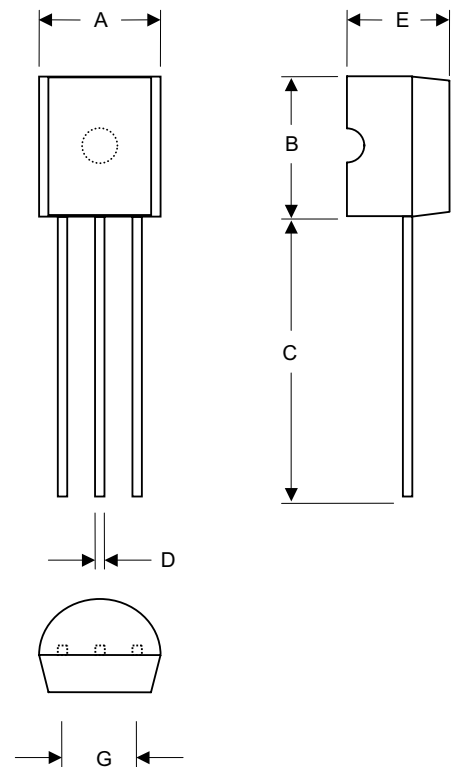
#### SMALL-SIGNAL CHARACTERISTICS

$f_T$	Transistor Frequency ( $I_C=5.0mA$ , $V_{CE}=5.0V$ , $f=400MHz$ )	600	---	MHz
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#### CLASSIFICATION OF $h_{FE}$

Rank	G	H	I
Range	70-108	97-146	130-198

### 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	



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