



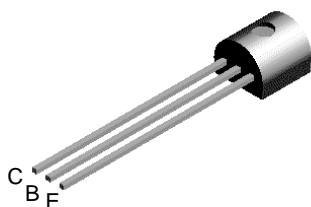
Micro Commercial Components
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S9018

NPN Silicon Transistors

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 Code: S9018



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

ON CHARACTERISTICS

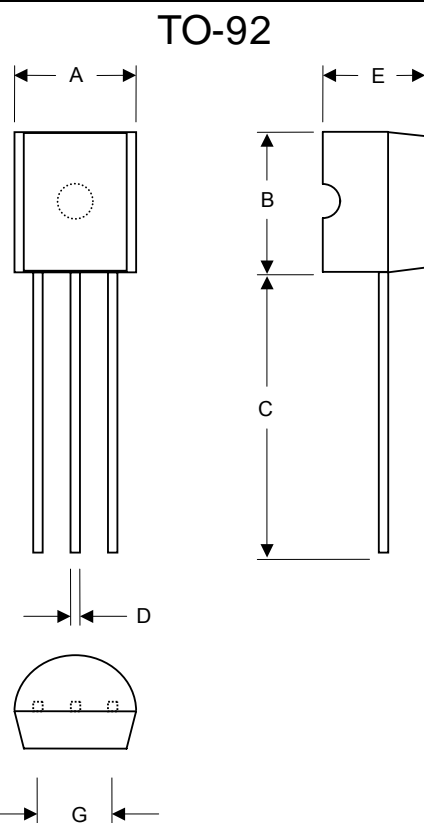
h_{FE}	DC Current Gain ($I_C=1.0mA_{dc}$, $V_{CE}=5.0V_{dc}$)	28	270	---
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage ($I_C=10mA_{dc}$, $I_B=1.0mA_{dc}$)	---	0.5	Vdc
$V_{BE(sat)}$	Base-Emitter Saturation Voltage ($I_C=10mA_{dc}$, $I_B=1.0mA_{dc}$)	---	1.4	Vdc

SMALL-SIGNAL CHARACTERISTICS

f_T	Transistor Frequency ($I_C=5.0mA_{dc}$, $V_{CE}=5.0V_{dc}$, $f=400MHz$)	600	---	MHz
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CLASSIFICATION OF $h_{FE(1)}$

Rank	F	G	H	I	J
Range	54-80	72-108	97-146	132-198	180-270



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	.175	.185	4.45	4.70	
B	.175	.185	4.46	4.70	
C	.500	---	12.7	---	
D	.016	.020	0.41	0.63	
E	.135	.145	3.43	3.68	
G	.095	.105	2.42	2.67	