



Micro Commercial Components



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S9014-B
S9014-C
S9014-D

NPN Silicon Transistors

Features

- TO-92 Plastic-Encapsulate Transistors
- Capable of 0.4Watts($T_{amb}=25^{\circ}\text{C}$) of Power Dissipation.
- Collector-current 0.1A
- Collector-base Voltage 50V
- Operating and storage junction temperature range: -55°C to $+150^{\circ}\text{C}$
- Marking : S9014
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Halogen free available upon request by adding suffix "-HF"

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

ON CHARACTERISTICS

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

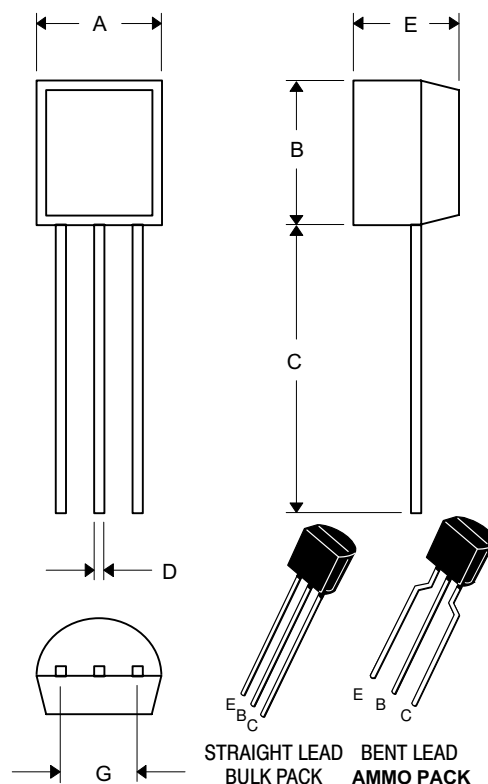
SMALL-SIGNAL CHARACTERISTICS

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

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

TO-92



DIMENSIONS

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.175	.185	4.45	4.70	
B	.175	.185	4.45	4.70	
C	.500	---	12.70	---	
D	.016	.020	0.41	0.63	
E	.135	.145	3.43	3.68	
G	.095	.105	2.42	2.67	Straight Lead
	.173	.220	4.40	5.60	Bent Lead

* For ammo packing detailed specification, click here to visit our website of product packaging for details.

Ordering Information :

Device	Packing
Part Number-AP	Ammo Packing: 20Kpcs/Carton
Part Number-BP	Bulk: 100Kpcs/Carton

Note : Adding "-HF" suffix for halogen free, eg. Part Number-AP-HF

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