Micro Commercial Components
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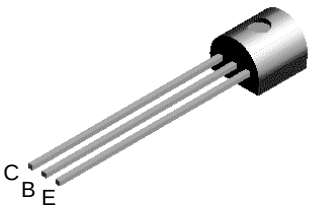
S9014

NPN Silicon Transistors

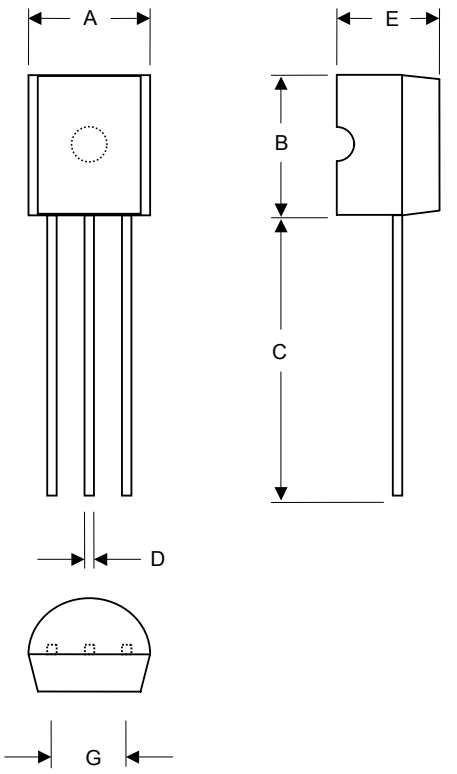
Features

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

Pin Configuration



TO-92



Electrical Characteristics @ 25^{0}C Unless Otherwise Specified

Symbol	Parameter	Min	Max	Units
OFF CHARACTERISTICS				
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage (I_C=100uAdc, I_E=0)	50	---	Vdc
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage (I_C=0.1mAdc, I_B=0)	45	---	Vdc
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage (I_E=100uAdc, I_C=0)	5.0	---	Vdc
I_{CBO}	Collector Cutoff Current (V_{CB}=50Vdc, I_E=0)	---	0.1	uAdc
I_{CEO}	Collector Cutoff Current (V_{CE}=35Vdc, I_B=0)	---	0.1	uAdc
I_{EBO}	Emitter Cutoff Current (V_{EB}=3.0Vdc, I_C=0)	---	0.1	uAdc
ON CHARACTERISTICS				
h_{FE}	DC Current Gain (I_C=1.0mAdc, V_{CE}=5.0Vdc)	60	1000	---
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage (I_C=100mAdc, I_B=5.0mAdc)	---	0.3	Vdc
$V_{BE(sat)}$	Base-Emitter Saturation Voltage (I_C=100mAdc, I_B=5.0mAdc)	---	1.0	Vdc
SMALL-SIGNAL CHARACTERISTICS				
f_T	Transistor Frequency (I_C=10mAdc, V_{CE}=5.0Vdc, f=30MHz)	150	---	MHz

CLASSIFICATION OF $H_{FE(1)}$

Rank	A	B	C1	C2	C3	D
Range	60-150	120-200	200-300	300-400	400-500	500-1000

DIMENSIONS

DIM	INCHES MIN	INCHES MAX	MM MIN	MM MAX	NOTE
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	