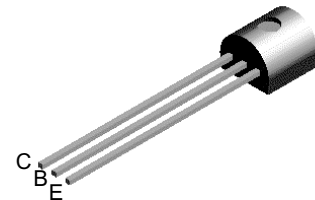


S9012-G
S9012-H
S9012-I

Features

- TO-92 Plastic-Encapsulate Transistors
- Capable of 0.625Watts($T_{amb}=25^{\circ}C$) of Power Dissipation.
- Collector-current 0.5A
- Collector-base Voltage 40V
- Operating and storage junction temperature range: $-55^{\circ}C$ to $+150^{\circ}C$
- Marking : S9012
- 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



Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Max	Units
OFF CHARACTERISTICS				
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage ($I_C=100\mu A$, $I_E=0$)	40	---	Vdc
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage ($I_C=0.1mA$, $I_B=0$)	25	---	Vdc
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage ($I_E=100\mu A$, $I_C=0$)	5.0	---	Vdc
I_{CBO}	Collector Cutoff Current ($V_{CB}=40V$, $I_E=0$)	---	0.1	μA
I_{CEO}	Collector Cutoff Current ($V_{CE}=20V$, $I_B=0$)	---	0.2	μA
I_{EBO}	Emitter Cutoff Current ($V_{EB}=5.0V$, $I_C=0$)	---	0.1	μA

ON CHARACTERISTICS

$h_{FE(1)}$	DC Current Gain ($I_C=1mA$, $V_{CE}=4.0V$)	64	400	---
$h_{FE(2)}$	DC Current Gain ($I_C=500mA$, $V_{CE}=1.0V$)	40	---	---
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage ($I_C=500mA$, $I_B=50mA$)	---	0.6	Vdc
$V_{BE(sat)}$	Base-Emitter Saturation Voltage ($I_C=500mA$, $I_B=50mA$)	---	1.2	Vdc
V_{EB}	Base- Emitter Voltage ($I_E=100mA$)	---	1.4	Vdc

SMALL-SIGNAL CHARACTERISTICS

f_T	Transistor Frequency ($I_C=20mA$, $V_{CE}=6.0V$, $f=30MHz$)	150	---	MHz
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CLASSIFICATION OF $h_{FE(1)}$

Rank	G	H	I
Range	112 -166	144 -202	190 -300

