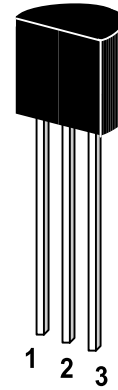


ST 9011

NPN Silicon Epitaxial Planar Transistor
for switching and AF amplifier applications.

The transistor is subdivided into six groups, D, E, F, G, H and I, according to its DC current gain.

On special request, these transistors can be manufactured in different pin configurations.



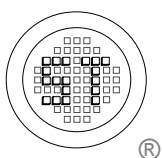
1. Emitter 2. Base 3. Collector

TO-92 Plastic Package
Weight approx. 0.19g

Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

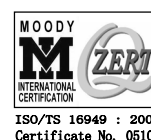
	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	50	V
Collector Emitter Voltage	V_{CEO}	30	V
Emitter Base Voltage	V_{EBO}	5	V
Collector Current	I_C	30	mA
Power Dissipation	P_{tot}	400	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_s	-55 to +150	$^\circ\text{C}$

G S P FORM A IS AVAILABLE



SEMTECH ELECTRONICS LTD.

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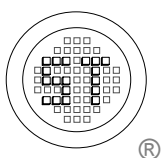
Dated : 03/12/2004

ST 9011

Characteristics at $T_{amb}=25\text{ }^{\circ}\text{C}$

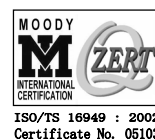
	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $V_{CE}=5\text{V}$, $I_C=1\text{mA}$					
Current Gain Group D	h_{FE}	28	-	45	-
E	h_{FE}	39	-	60	-
F	h_{FE}	54	-	80	-
G	h_{FE}	72	-	108	-
H	h_{FE}	97	-	146	-
I	h_{FE}	132	-	198	-
Collector Base Breakdown Voltage at $I_C=100\mu\text{A}$	$V_{(BR)CBO}$	50	-	-	V
Collector Emitter Breakdown Voltage at $I_C=1\text{mA}$	$V_{(BR)CEO}$	30	-	-	V
Emitter Base Breakdown Voltage at $I_E=100\mu\text{A}$	$V_{(BR)EBO}$	5	-	-	V
Collector Cutoff Current at $V_{CB}=50\text{V}$	I_{CBO}	-	-	100	nA
Emitter Cutoff Current at $V_{CB}=5\text{V}$	I_{EBO}	-	-	100	nA
Collector Emitter Saturation Voltage at $I_C=10\text{mA}$, $I_B=1\text{mA}$	$V_{CE(sat)}$	-	0.08	0.3	V
Base Emitter Voltage at $V_{CE}=5\text{V}$, $I_C=1\text{mA}$	$V_{BE(on)}$	0.60	0.7	0.75	V
Collector Base Capacitance at $V_{CB}=10\text{V}$, $f=1\text{MHz}$	C_{CBO}	-	1.5	-	pF
Gain Bandwidth Product at $V_{CE}=5\text{V}$, $I_C=1\text{mA}$	f_T	150	370	-	MHz

G S P FORM A IS AVAILABLE



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