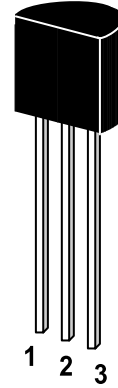


## NPN Silicon Epitaxial Planar Transistor

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.

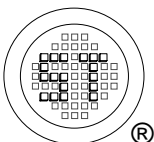


1. Emitter 2. Base 3. Collector

TO-92 Plastic Package  
Weight approx. 0.19g

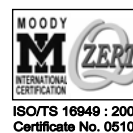
### Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

	Symbol	Value	Unit
Collector Base Voltage	$V_{CB0}$	30	V
Collector Emitter Voltage	$V_{CE0}$	20	V
Emitter Base Voltage	$V_{EB0}$	4	V
Collector Current	$I_C$	25	mA
Power Dissipation	$P_{tot}$	400	mW
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_S$	-65 to +150	$^\circ\text{C}$



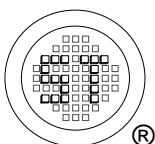
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## Characteristics at $T_{amb}=25\text{ }^{\circ}\text{C}$

	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $V_{CE}=5V, I_C=1mA$					
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 $I_C=100\mu A$	$V_{(BR)CBO}$	30	-	-	V
Collector Emitter Breakdown Voltage at $I_C=1mA$	$V_{(BR)CEO}$	20	-	-	V
Emitter Base Breakdown Voltage at $I_E=100\mu A$	$V_{(BR)EBO}$	4	-	-	V
Collector Cutoff Current at $V_{CB}=30V$	$I_{CBO}$	-	-	100	nA
Emitter Cutoff Current at $V_{EB}=3V$	$I_{EBO}$	-	-	100	nA
Collector Emitter Saturation Voltage at $I_C=10mA, I_B=1mA$	$V_{CE(sat)}$	-	0.1	0.3	V
Base Emitter on Voltage at $V_{CE}=5V, I_C=1mA$	$V_{BE(on)}$	-	0.72	-	V
Collector Base Capacitance at $V_{CB}=10V, f=1MHz$	$C_{CBO}$	-	1.2	1.6	pF
Gain Bandwidth Product at $V_{CE}=5V, I_C=1mA$	$f_T$	400	620	-	MHz



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ISO/TS 16949 : 2002  
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ISO 14001:2004  
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ISO 9001:2000  
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