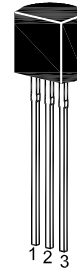


**NPN Silicon Epitaxial Planar Transistor**

for switching and AF amplifier applications

The transistor is subdivided into five groups, L, M, N, O and P, according to its DC current gain.

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



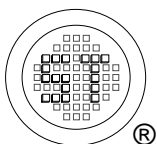
1. Emitter 2. Base 3. Collector  
TO-92 Plastic Package

**Absolute Maximum Ratings (T<sub>a</sub> = 25 °C)**

Parameter	Symbol	Value	Unit
Collector Base Voltage	V <sub>CBO</sub>	30	V
Collector Emitter Voltage	V <sub>CEO</sub>	25	V
Emitter Base Voltage	V <sub>EBO</sub>	5	V
Collector Current	I <sub>C</sub>	1	A
Power Dissipation	P <sub>tot</sub>	600	mW
Junction Temperature	T <sub>j</sub>	150	°C
Storage Temperature Range	T <sub>stg</sub>	- 55 to + 150	°C

**Characteristics at T<sub>a</sub> = 25 °C**

Parameter	Symbol	Min.	Typ.	Max.	Unit	
DC Current Gain at V <sub>CE</sub> = 1 V, I <sub>C</sub> = 100 mA Current Gain Group	L	h <sub>FE</sub>	132	-	189	-
	M	h <sub>FE</sub>	170	-	233	-
	N	h <sub>FE</sub>	213	-	300	-
	O	h <sub>FE</sub>	263	-	370	-
	P	h <sub>FE</sub>	333	-	476	-
Collector Base Cutoff Current at V <sub>CB</sub> = 20 V	I <sub>CBO</sub>	-	-	0.1	µA	
Emitter Base Cutoff Current at V <sub>EB</sub> = 5 V	I <sub>EBO</sub>	-	-	0.5	µA	
Collector Base Breakdown Voltage at I <sub>C</sub> = 10 µA	V <sub>(BR)CBO</sub>	30	-	-	V	
Collector Emitter Breakdown Voltage at I <sub>C</sub> = 10 mA	V <sub>(BR)CEO</sub>	25	-	-	V	
Emitter Base Breakdown Voltage at I <sub>E</sub> = 100 µA	V <sub>(BR)EBO</sub>	5	-	-	V	
Collector Emitter Saturation Voltage at I <sub>C</sub> = 500 mA, I <sub>B</sub> = 50 mA	V <sub>CE(sat)</sub>	-	-	0.7	V	
Gain Bandwidth Product at V <sub>CE</sub> = 5 V, I <sub>C</sub> = 10 mA	f <sub>T</sub>	-	100	-	MHz	
Output Capacitance at V <sub>CB</sub> = 5 V, f = 1 MHz	C <sub>ob</sub>	-	12	-	pF	



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