

## **NPN Silicon Epitaxial Planar Transistor**

for switching and AF amplifier applications.

The transistor is subdivided into four groups, O, Y, G and L, according to its DC current gain

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



1. Emitter 2. Collector 3. Base

TO-92 Plastic Package Weight approx. 0.19g

## Absolute Maximum Ratings (T<sub>a</sub> = 25<sup>o</sup>C)

	Symbol	Value	Unit
Collector Base Voltage	V <sub>CBO</sub>	60	V
Collector Emitter Voltage	V <sub>CEO</sub>	50	V
Emitter Base Voltage	$V_{\text{EBO}}$	5	V
Collector Current	Ι <sub>C</sub>	100	mA
Power Dissipation	P <sub>tot</sub>	200	mW
Junction Temperature	Tj	150	°C
Storage Temperature Range	Τs	-55 to +150	°C







## Characteristics at $T_{amb}$ =25 $^{o}C$

	Symbol	Min.	Тур.	Max.	Unit
DC Current Gain					
at V <sub>CE</sub> =6V, I <sub>C</sub> =1mA					
Current Gain Group R	$h_{FE}$	90	-	180	-
0	h <sub>FE</sub>	135	-	270	-
Y	$h_{FE}$	200	-	400	-
G	h <sub>FE</sub>	300	-	600	-
Collector Base Breakdown Voltage					
at I <sub>C</sub> =100μA	V <sub>(BR)CBO</sub>	60	-	-	V
Collector Emitter Breakdown Voltage					
at I <sub>C</sub> =10mA	$V_{(BR)CEO}$	50	-	-	V
Emitter Base Breakdown Voltage					
at I <sub>E</sub> =10μA	$V_{(BR)EBO}$	5	-	-	V
Collector Cutoff Current					
at V <sub>CB</sub> =60V	I <sub>CBO</sub>	-	-	0.1	μA
Emitter Cutoff Current					
at V <sub>EB</sub> =5V	I <sub>EBO</sub>	-	-	0.1	μA
Collector Saturation Voltage					
at I <sub>C</sub> =100mA, I <sub>B</sub> =10mA	$V_{\text{CE(sat)}}$	-	0.15	0.3	V
Base Saturation Voltage					
at I <sub>C</sub> =100mA, I <sub>B</sub> =10mA	$V_{BE(sat)}$	-	0.86	1	V
Gain Bandwidth Product					
at $V_{CE}$ =6V, $I_C$ =10mA	f <sub>T</sub>	-	250	-	MHz
Output Capacitance					
at V <sub>CB</sub> =6V, f=1MHz	C <sub>OB</sub>	-	3	-	pF







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