2SC2001 NPN Silicon Epitaxial Planar Transistor

for switching and AF amplifier applications.

The transistor is subdivided into three groups, O, Y and G, 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_a = 25 °C)

Parameter	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	30	V
Collector Emitter Voltage	V_{CEO}	25	V
Emitter Base Voltage	V_{EBO}	5	V
Collector Current	I_C	700	mA
Power Dissipation	P_{tot}	600	mW
Junction Temperature	T_j	150	^{O}C
Storage Temperature Range	T_S	-55 to +150	^{O}C

Characteristics at T_{amb}=25 °C

Parameter	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain					
at V_{CE}=1V, I_C=100mA					
Current Gain Group O	h_{FE}	90	-	180	-
Y	h_{FE}	135	-	270	-
G	h_{FE}	200	-	400	-
at V_{CE}=1V, I_C=700mA	h_{FE}	50	-	-	-
Collector Base Breakdown Voltage					
at I_C=10μA	$V_{(BR)CBO}$	30	-	-	V
Base Emitter Voltage					
at I_C=10mA, V_{CE}=6V	V_{BE}	0.6	-	0.7	V
Emitter Cutoff Current					
at V_{EB}=5V	I_{EBO}	-	-	0.1	μA
Collector Cutoff Current					
at V_{CB}=30V	I_{CBO}	-	-	0.1	μA
Collector Saturation Voltage					
at I_C=700mA, I_B=70mA	$V_{CE(sat)}$	-	0.2	0.6	V
Base Saturation Voltage					
at I_C=700mA, I_B=70mA	$V_{BE(sat)}$	-	0.95	1.2	V
Gain Bandwidth Product					
at V_{CE}=6V, I_C=10mA	f_T	50	170	-	MHz
Output Capacitance					
at V_{CB}=6V, f=1MHz	C_{OB}	-	13	25	pF