NPN Silicon Epitaxial Planar Transistor

High -Voltage Low-Noise Amp applications

The transistor is subdivided into three groups F, G and H, according to its DC current gain.



1. Emitter 2. Collector 3. Base

TO-92 Plastic Package Weight approx. 0.19g

Absolute Maximum Ratings (T_a = 25°C)

	Symbol	Value	Unit
Collector Base Voltage	V _{CBO}	120	V
Collector Emitter Voltage	V _{CEO}	100	V
Emitter Base Voltage	V _{EBO}	5	V
Collector Current	Ι _C	50	mA
Collector Current (Pulse)	I _{CP}	100	mA
Collector Dissipation	P _{tot}	400	mW
Junction Temperature	Tj	125	°C
Storage Temperature Range	Ts	-55 to +125	°C









Characteristics at $T_{amb}=25$ °C

	Symbol	Min.	Тур.	Max.	Unit
DC Current Gain					
at V_{CE} =6V, I _C =1mA					
Current Gain Group F	h _{FE}	160	-	320	-
G	h _{FE}	280	-	560	-
н	h _{FE}	480	-	960	-
Collector Base Breakdown Voltage					
at I _C =10μA	V _{(BR)CBO}	120	-	-	V
Collector Emitter Breakdown Voltage					
at I _C =1mA	V _{(BR)CEO}	100	-	-	V
Emitter Base Breakdown Voltage					
at I _E =10μA	V _{(BR)EBO}	5	-	-	V
Collector Cutoff Current					
atV _{CB} =80V	I _{CBO}	-	-	1	μA
Emitter Cutoff Current					
atV _{EB} =4V	I _{EBO}	-	-	1	μΑ
Collector Emitter Saturation Voltage					
at I _C =10mA, I _B =1mA	V _{CE(sat)}	-	-	0.5	V
Gain Bandwidth Product					
at V_{CE} =6V, I _C =1mA	f _T	-	130	-	MHz
Output Capacitance					
at V _{CB} =10V, f=1MHz	C _{OB}	-	1.8	-	pF
Noise Level					
at V_{CC} =30V, I_C =1mA					
R_g =56K Ω , V_G =77dB/1kHz	C _{NO(ave)}	-	-	35	mV
Noise Peak Level					
at V_{cc} =30V, I _c =1mA					
R_g =56K Ω ,V _G =77dB/1kHz	C _{NO(peak)}	-	-	200	mV





