NPN Silicon Epitaxial Planar Transistor

RF amplifier applications.

The transistor is subdivided into three groups, R, O and Y. 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 ($T_a = 25^{\circ}C$)

12 1 = WWW	Symbol	Value	Unit
Collector Base Voltage	V _{CBO}	30	V
Collector Emitter Voltage	V _{CEO}	20	V
Emitter Base Voltage	V _{EBO}	4 WW.02	V
Collector Current	lc	20	mA
Collector Dissipation	P _{tot}	500	mW
Junction Temperature	T _j	150	°C
Storage Temperature Range	Ts	-55 to +150	°C



SEMTECH ELECTRONICS LTD.

(Subsidiary of Sino-Tech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)







Characteristics at T_{amb}=25 °C

		Symbol	Min.	Тур.	Max.	Unit
DC Current Gain						
at V _{CE} =6V, I _C =1mA	R	h_{FE}	40	-	80	-
	0	h_{FE}	70	-	140	-
	Υ	h_FE	120	-	240	-
Collector Base Breakdown Voltage						
at I _C =10μA		V_{CBO}	30	-	-	V
Collector Emitter Breakdown Voltage						
at I _C =5mA		V_{CEO}	20	-	-	V
Emitter Base Breakdown Voltage						
at I _E =10μA		V_{EBO}	4	-	-	V
Collector Cutoff Current						
at V _{CB} =30V		I_{CBO}	-	-	0.5	μΑ
Emitter Cutoff Current						
at V _{EB} =4V		I_{EBO}	-	-	0.5	μΑ
Collector Emitter Saturation Voltage						
at I _C =10mA, I _B =1mA		$V_{\text{CE(sat)}}$	-	-	0.3	V
Transition Frequency						
at V _{CE} =6V, I _E =-1mA		f_T	-	550	-	MHz
Collector Output Capacitance						
at V _{CB} =6V, f=1MHz		C_OB		1.4		pF









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