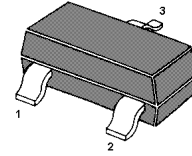


NPN Silicon Epitaxial Planar Transistor

for high frequency amplifier at FM,RF,MIX, and IF amplifier applications.

The transistor is subdivided into three groups, R, O and Y, according to its DC current gain.



1. Base 2. Emitter 3. Collector
SOT-23 Plastic Package

Absolute Maximum Ratings ($T_a = 25\text{ }^\circ\text{C}$)

	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	40	V
Collector Emitter Voltage	V_{CEO}	30	V
Emitter Base Voltage	V_{EBO}	4	V
Collector Current	I_C	20	mA
Base Current	I_B	4	mA
Power Dissipation	P_{tot}	200	mW
Junction Temperature	T_j	125	$^\circ\text{C}$
Storage Temperature Range	T_{Stg}	-55 to +125	$^\circ\text{C}$

Characteristics at $T_{amb}=25\text{ }^{\circ}\text{C}$

	Symbol	Min.	Typ.	Max.	Unit	
DC Current Gain at $V_{CE}=6\text{V}$, $I_C=1\text{mA}$ Current Gain Group	R	h_{FE}	40	-	80	-
	O	h_{FE}	70	-	140	-
	Y	h_{FE}	100	-	200	-
Collector Cutoff Current at $V_{CB}=18\text{V}$	I_{CBO}	-	-	0.5	μA	
Emitter Cutoff Current at $V_{EB}=4\text{V}$	I_{EBO}	-	-	0.5	μA	
Transition Frequency at $V_{CE}=6\text{V}$, $I_C=1\text{mA}$	f_T	-	550	-	MHz	
Reverse Transfer Capacitance at $V_{CB}=6\text{V}$, $f=1\text{MHz}$	C_{re}	-	0.7	-	pF	
Collector-Base Time Constant	$C_{c.rbb'}$	-	-	30	ps	
Noise Figure at $V_{CE}=6\text{V}$, $I_E=-1\text{mA}$, $f=100\text{MHz}$	NF	-	2.5	5	dB	
Power Gain at $V_{CE}=6\text{V}$, $I_E=-1\text{mA}$, $f=100\text{MHz}$	G_{pe}	17	23	-	dB	

