

2SC1393 NPN Silicon Epitaxial Planar Transistor

TV VHF TUNER RF AMPLIFIER (FORWARD AGC)

The transistor is subdivided into three group, 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 ($T_a = 25^{\circ}\text{C}$)

Parameter	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	30	V
Collector Emitter Voltage	V_{CEO}	30	V
Emitter Base Voltage	V_{EBO}	4	V
Collector Current	I_C	20	mA
Collector Dissipation	P_{tot}	250	mW
Junction Temperature	T_j	150	$^{\circ}\text{C}$
Storage Temperature Range	T_s	-55 to +150	$^{\circ}\text{C}$

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

Parameter	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at V _{CE} =10V, I _C =2mA	R O Y h _{FE} h _{FE} h _{FE}	40 60 90	- - -	80 140 180	-
Collector Base Breakdown Voltage at I _C =10μA	V _{(BR)CBO}	30	-	-	V
Collector Emitter Breakdown Voltage at I _C =5mA	V _{(BR)CEO}	30	-	-	V
Emitter Base Breakdown Voltage at I _E =10μA	V _{(BR)EBO}	4	-	-	V
Collector Cutoff Current at V _{CB} =20V	I _{CBO}	-	-	0.1	μA
AGC Current I _E at G _{pe} =-30dB, f=200MHz	I _{AGC}	-	-10	-12	mA
Reverse Transfer Capacitance at V _{CB} =10V, f=1MHz	C _{re}	-	0.35	0.5	pF
Current Gain Bandwidth Product at V _{CE} =10V, I _C =3mA	f _T	400	700	-	MHz
Power Gain at V _{CE} =10V, f=200MHz, R _S =50Ω, I _E =-3mA	G _{pe}	20	24	-	dB
Noise Figure at V _{CE} =10V, I _E =-3mA f=200MHz, R _S =50Ω	NF	-	2.0	3.0	dB