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℃)

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	℃
Storage Temperature Range	T_S	-55 to +150	℃

Characteristics at T_{amb}=25℃

Parameter		Symbol	Min.	Typ.	Max.	Unit
DC Current Gain						
at V_{CE}=10V, I_C=2mA	R	h_{FE}	40	-	80	-
	O	h_{FE}	60	-	140	
	Y	h_{FE}	90	-	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