

ST 2SC1393

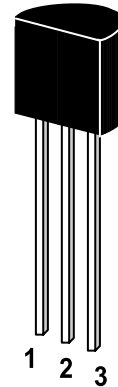
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NPN Silicon Epitaxial Planar Transistor

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.

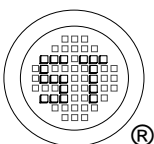


1. Emitter 2. Collector 3. Base

TO-92 Plastic Package
Weight approx. 0.19g

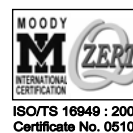
Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

	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	$^\circ\text{C}$



SEMTECH ELECTRONICS LTD.

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



ISO/TS 16949 : 2002
Certificate No. 05103

ISO 14001:2004
Certificate No. 014

ISO 9001:2000
Certificate No. 014

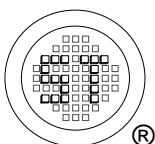
Dated : 16/06/2004

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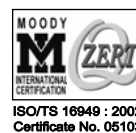
Characteristics at $T_{amb}=25^{\circ}\text{C}$

	Symbol	Min.	Typ.	Max.	Unit	
DC Current Gain at $V_{CE}=10\text{V}$, $I_C=2\text{mA}$	R	h_{FE}	40	-	80	-
	O	h_{FE}	60	-	140	
	Y	h_{FE}	90	-	180	
Collector Base Breakdown Voltage at $I_C=10\mu\text{A}$	$V_{(BR)CBO}$	30	-	-	V	
Collector Emitter Breakdown Voltage at $I_C=5\text{mA}$	$V_{(BR)CEO}$	30	-	-	V	
Emitter Base Breakdown Voltage at $I_E=10\mu\text{A}$	$V_{(BR)EBO}$	4	-	-	V	
Collector Cutoff Current at $V_{CB}=20\text{V}$	I_{CBO}	-	-	0.1	μA	
AGC Current I_E at $G_{pe}=-30\text{dB}$, $f=200\text{MHz}$	I_{AGC}	-	-10	-12	mA	
Reverse Transfer Capacitance at $V_{CB}=10\text{V}$, $f=1\text{MHz}$	C_{re}	-	0.35	0.5	pF	
Current Gain Bandwidth Product at $V_{CE}=10\text{V}$, $I_C=3\text{mA}$	f_T	400	700	-	MHz	
Power Gain at $V_{CE}=10\text{V}$, $f=200\text{MHz}$, $R_S=50\Omega$, $I_E=-3\text{mA}$	G_{pe}	20	24	-	dB	
Noise Figure at $V_{CE}=10\text{V}$, $I_E=-3\text{mA}$ $f=200\text{MHz}$, $R_S=50\Omega$	NF	-	2.0	3.0	dB	



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