

ST 2SC930C1...F1

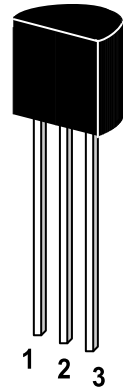
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NPN Silicon Epitaxial Planar Transistor

for FM RF amp, mixer, osc, converter and IF amplifier.

The transistor is subdivided into four groups C1, D1, E1 and F1, according to its DC current gain.

On special request, these transistors can be manufactured in different pin configurations.

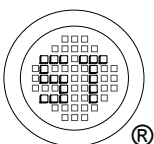


1. Emitter 2. Collector 3. Base

TO-92 Plastic Package
Weight approx. 0.19g

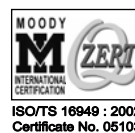
Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	30	V
Collector Emitter Voltage	V_{CEO}	20	V
Emitter Base Voltage	V_{EBO}	5	V
Collector Current	I_C	30	mA
Power Dissipation	P_{tot}	250	mW
Junction Temperature	T_j	125	$^\circ\text{C}$
Storage Temperature Range	T_s	-55 to +125	$^\circ\text{C}$



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

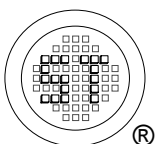
Dated : 20/05/2003

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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 C1	h_{FE}	40	-	80	-
D1	h_{FE}	60	-	120	-
E1	h_{FE}	100	-	200	-
F1	h_{FE}	160	-	320	-
Collector Cutoff Current at $V_{CB}=10\text{V}$	I_{CBO}	-	-	1	μA
Emitter Cutoff Current at $V_{EB}=4\text{V}$	I_{EBO}	-	-	1	μA
Gain Bandwidth Product at $V_{CE}=6\text{V}$, $I_C=1\text{mA}$	f_T	170	300	-	MHz
Reverse Transfer Capacitance at $V_{CB}=6\text{V}$, $f=1\text{MHz}$	C_{re}	1	1.3	1.8	pF
Base to Collector Time Constant at $V_{CB}=6\text{V}$, $I_C=1\text{mA}$, $f=31.9\text{MHz}$	$R_{bb} \cdot C_c$	-	20	36	ps
Noise Figure at $V_{CB}=6\text{V}$, $I_C=1\text{mA}$, $f=100\text{MHz}$	NF	-	4	-	dB
Turn-on Time at $V_{IN}=+12\text{V}$, $V_{BE}=-3\text{V}$, appointed circuit	t_{on}	-	30	-	ns
Turn-off Time at $V_{IN}=-12\text{V}$, $V_{BE}=+3\text{V}$, appointed circuit	t_{off}	-	30	-	ns



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