

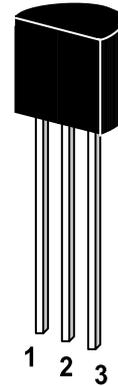
ST 2SC1959

NPN Silicon Epitaxial Planar Transistor

for switching, driver stage and audio frequency low power amplifier applications.

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

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



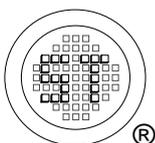
1. Emitter 2. Collector 3. Base

TO-92 Plastic Package

Weight approx. 0.19g

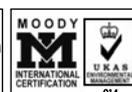
Absolute Maximum Ratings ($T_a = 25\text{ }^\circ\text{C}$)

	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	35	V
Collector Emitter Voltage	V_{CEO}	30	V
Emitter Base Voltage	V_{EBO}	5	V
Collector Current	I_C	500	mA
Base Current	I_B	100	mA
Power Dissipation	P_{tot}	500	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)



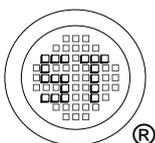
ISO/TS 16949 : 2002 Certificate No. 05103
ISO 14001:2004 Certificate No. 7116
ISO 9001:2000 Certificate No. 0506098

Dated : 07/12/2002

ST 2SC1959

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

	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $V_{CE}=1\text{V}$, $I_C=100\text{mA}$					
Current Gain Group O	h_{FE}	70	-	140	-
Y	h_{FE}	120	-	240	-
G	h_{FE}	200	-	400	-
at $V_{CE}=6\text{V}$, $I_C=400\text{mA}$	h_{FE}	25	-	-	-
Base Emitter Voltage at $I_C=100\text{mA}$, $V_{CE}=1\text{V}$	V_{BE}	-	0.8	1	V
Emitter Cutoff Current at $V_{EB}=5\text{V}$	I_{EBO}	-	-	0.1	μA
Collector Cutoff Current at $V_{CB}=35\text{V}$	I_{CBO}	-	-	0.1	μA
Collector Saturation Voltage at $I_C=100\text{mA}$, $I_B=10\text{mA}$	$V_{CE(sat)}$	-	0.1	0.25	V
Transition Frequency at $V_{CE}=6\text{V}$, $I_C=20\text{mA}$	f_T	-	300	-	MHz
Output Capacitance at $V_{CB}=6\text{V}$, $f=1\text{MHz}$	C_{OB}	-	7	-	pF



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. 71116



ISO 9001:2000
Certificate No. 0506098

Dated : 07/12/2002