

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

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

Parameter	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_{stg}	- 55 to + 150	$^\circ\text{C}$

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

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

