2SC3875 NPN Silicon Epitaxial Planar Transistor

for switching and AF amplifier applications.

The transistor is subdivided into four groups, O, Y, G and L, 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}	60	V
Collector Emitter Voltage	V_{CEO}	50	V
Emitter Base Voltage	V_{EBO}	5	V
Collector Current	I_C	150	mA
Base Current	I_B	30	mA
Power Dissipation	P_{tot}	150	mW
Junction Temperature	T_j	125	^{O}C
Storage Temperature Range	T_S	-55 to +125	^{O}C

Characteristics at T_{amb}=25 °C

Parameter		Symbol	Min.	Typ.	Max.	Unit
DC Current Gain						
at V_{CE}=6V, I_C=2mA						
Current Gain Group	O	h_{FE}	70	-	140	-
	Y	h_{FE}	120	-	240	-
	G	h_{FE}	200	-	400	-
	L	h_{FE}	350	-	700	-
Collector Emitter Saturation Voltage						
at I_C=100mA, I_B=10mA		$V_{CE(sat)}$	-	0.1	0.25	V
Collector Cutoff Current						
at V_{CB}=60V		I_{CBO}	-	-	0.1	μA
Emitter Cutoff Current						
at V_{EB}=5V		I_{EBO}	-	-	0.1	μA
Transition Frequency						
at V_{CE}=10V, I_C=1mA		f_T	80	-	-	MHz
Collector Output Capacitance						
at V_{CB}=10V, f=1MHz		C_{OB}	-	2	3.5	pF
Noise Figure						
at V_{CE}=6V, I_C=0.1mA						
f=1KHz, R_G=10KΩ		NF	-	1	10	dB