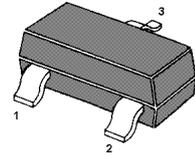


NPN Silicon Epitaxial Planar Transistor

for general small signal amplifier.

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



1.Base 2.Emitter 3.Collector
SOT-23 Plastic Package

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

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	50	V
Collector-Emitter Voltage	V_{CEO}	50	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	150	mA
Power Dissipation	P_{tot}	200	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_s	-55 +150	$^\circ\text{C}$

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

Parameter	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $V_{CE}=6V, I_C=1mA$					
Current Gain Group O	h_{FE}	70	-	140	-
Y	h_{FE}	120	-	240	-
G	h_{FE}	200	-	400	-
L	h_{FE}	300	-	700	-
Collector Emitter Saturation Voltage at $I_C=50mA, I_B=5mA$	$V_{CE(sat)}$	-	-	400	mV
Collector Cutoff Current at $V_{CB}=30V$	I_{CBO}	-	-	0.5	μA
Emitter Cutoff Current at $V_{EB}=4V$	I_{EBO}	-	-	0.5	μA
Transition Frequency at $V_{CE}=12V, I_C=2mA$	f_T	-	180	-	MHz
Output Capacitance at $V_{CB}=12V, f=1MHz$	C_{OB}	-	2	-	pF
Collector Base Breakdown Voltage at $I_C=50\mu A$	$V_{(BR)CBO}$	50	-	-	V
Collector Emitter Breakdown Voltage at $I_C=1mA$	$V_{(BR)CEO}$	50	-	-	V
Emitter Base Breakdown Voltage at $I_E=50\mu A$	$V_{(BR)EBO}$	5	-	-	V
Noise Figure at $V_{CE}=6V, I_C=0.1mA, f=1KHz, R_G=10K\Omega$	NF	-	1	10	dB

