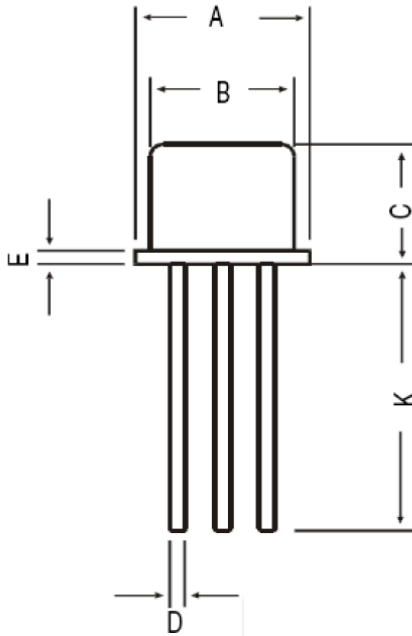


## Small Signal General Purpose Transistors (PNP)

### Dimensions in mm



All dimensions in mm.

DIM	MIN	MAX
A	5.24	5.84
B	4.52	4.97
C	4.31	5.33
D	0.40	0.53
E	—	0.76
F	—	1.27
G	—	2.97
H	0.91	1.17
J	0.71	1.21
K	12.70	—
L	45 DEG	



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### Maximum Ratings ( $T_{Ambient}=25^{\circ}C$ unless noted otherwise)

Symbol	Description	2N2907A	Unit
<b>V<sub>CB0</sub></b>	Collector-Base Voltage	60	V
<b>V<sub>CEO</sub></b>	Collector-Emitter Voltage	60	V
<b>V<sub>EB0</sub></b>	Emitter-Base Voltage	5.0	V
<b>I<sub>c</sub></b>	Collector Current Continuous	600	mA
<b>P<sub>D</sub></b>	Power Dissipation at T <sub>A</sub> =25°C	400	mW
	Power Dissipation Derate above T <sub>A</sub> =25°C	2.28	mW/° C
	Power Dissipation at T <sub>C</sub> =25°C	1.8	W
	Power Dissipation Derate above T <sub>C</sub> =25°C	10.3	mW/° C
<b>T<sub>J</sub>, T<sub>STG</sub></b>	Operating Junction and Storage Temperature Range	-65 to +200	° C

# Small Signal General Purpose Transistor (PNP)

## 2N2907A

### Electrical Characteristics ( $T_{Ambient}=25^{\circ}C$ unless noted otherwise)

Symbol	Description	Min.	Max.	Unit	Conditions
<b>V<sub>CB0</sub></b>	Collector-Base Voltage	60	-	V	I <sub>C</sub> =10μA, I <sub>E</sub> =0
<b>*V<sub>CEO</sub></b>	Collector-Emitter Voltage	60	-	V	I <sub>C</sub> =10mA, I <sub>B</sub> =0
<b>V<sub>EBO</sub></b>	Emitter-Base Voltage	5.0	-	V	I <sub>E</sub> =10μA, I <sub>C</sub> =0
<b>h<sub>FE</sub></b>	D.C. Current Gain	75	-		V <sub>CE</sub> =10V, I <sub>C</sub> =0.1mA
		100	-		V <sub>CE</sub> =10V, I <sub>C</sub> =1mA
		100	-		V <sub>CE</sub> =10V, I <sub>C</sub> =10mA
		100	300		*V <sub>CE</sub> =10V, I <sub>C</sub> =150mA
		50	-		*V <sub>CE</sub> =10V, I <sub>C</sub> =500mA
<b>*V<sub>CE(sat)</sub></b>	Collector-Emitter Saturation Voltage	-	0.4	V	I <sub>C</sub> =150mA, I <sub>B</sub> =15mA
		-	1.6	V	I <sub>C</sub> =500mA, I <sub>B</sub> =50mA
<b>*V<sub>BE(sat)</sub></b>	Base-Emitter Saturation Voltage	-	1.3	V	I <sub>C</sub> =150mA, I <sub>B</sub> =15mA
		-	2.6	V	I <sub>C</sub> =500mA, I <sub>B</sub> =50mA
<b>I<sub>CBO</sub></b>	Collector-Cut-off Current	-	10	nA	V <sub>CB</sub> =50V, I <sub>E</sub> =0
		-	10	μA	V <sub>CB</sub> =50V, I <sub>E</sub> =0, T <sub>A</sub> =150° C
<b>I<sub>CEx</sub></b>	Collector-Cut-off Current	-	50	nA	V <sub>CE</sub> =30V, V <sub>BE</sub> =0.5V
<b>I<sub>B</sub></b>	Base Current	-	50	nA	V <sub>CE</sub> =30V, V <sub>BE</sub> =0.5V
<b>**f<sub>t</sub></b>	Transition Frequency	200	-	MHz	I <sub>C</sub> =50mA, V <sub>CE</sub> =20V, f=100MHz
<b>C<sub>ob</sub></b>	Out-Put Capacitance	-	8.0	pF	V <sub>CB</sub> =10V, I <sub>E</sub> =0, f=100KHz
<b>C<sub>ib</sub></b>	In-Put Capacitance	-	30	pF	V <sub>BE</sub> =2V, I <sub>C</sub> =0, f=100KHz
<b>t<sub>d</sub></b>	Delay Time	-	10	nS	I <sub>C</sub> =150mA, I <sub>B1</sub> =15mA
<b>t<sub>r</sub></b>	Rise Time	-	40	nS	V <sub>CC</sub> =30V
<b>t<sub>on</sub></b>	Turn-On Time	-	45	nS	
<b>t<sub>s</sub></b>	Storage Time	-	80	nS	I <sub>C</sub> =150mA, I <sub>B1</sub> =I <sub>B2</sub> =15mA
<b>t<sub>f</sub></b>	Fall Time	-	30	nS	V <sub>CC</sub> =6V
<b>t<sub>off</sub></b>	Turn-Off Time	-	100	nS	

\*Pulse Test: -Pulse Width=300μs, Duty Cycle=2%

\*\*f<sub>t</sub> is defined as the frequency at which h<sub>fe</sub>/ extrapolates to unity