



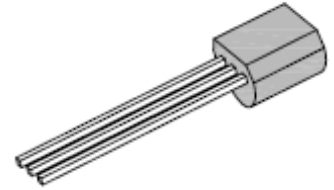
Small Signal General Purpose Transistors (PNP)

PN2907A

Small Signal General Purpose Transistors (PNP)

Features

- PNP Silicon Epitaxial Transistor for Switching and Amplifier Applications
- RoHS Compliance



TO-92

Mechanical Data

Case:	TO-92, Plastic Package
Terminals:	Solderable per MIL-STD-202G, Method 208
Weight:	0.18 gram

Maximum Ratings *(T_{Ambient}=25°C unless noted otherwise)*

Symbol	Description	PN2907A	Unit
V_{CEO}	Collector-Emitter Voltage	60	V
V_{CBO}	Collector-Base Voltage	60	V
V_{EBO}	Emitter-Base Voltage	5.0	V
I_C	Collector Current Continuous	600	mA
P_D	Power Dissipation at T _A =25°C	625	mW
	Derate above 25°C	5.0	mW/° C
P_D	Power Dissipation at T _C =25°C	1.5	W
	Derate above 25°C	12	mW/° C
R_{θJA}	Thermal Resistance Junction to Ambient Air	200	° C/W
R_{θJC}	Thermal Resistance Junction to Case	83.3	° C/W
T_J , T_{STG}	Operation and Storage Junction Temperature Range	-55 to +150	° C



Small Signal General Purpose Transistors (PNP)

PN2907A

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

Symbol	Description	PN2907A		Unit	Conditions
		Min.	Max.		
V_{(BR)CBO}	Collector-Base Breakdown Voltage	60	-	V	I _C =10μA, I _E =0
V_{(BR)CEO}	Collector-Emitter Breakdown Voltage	60	-	V	I _C =10mA, I _B =0
V_{(BR)EBO}	Emitter-Base Breakdown Voltage	5.0	-	V	I _E =10μA, I _C =0
I_{CBO}	Collector Cut-Off Current	-	10	nA	V _{CB} =50V, I _E =0
		-	10	μA	V _{CB} =50V, I _E =0, T _A =150° C
I_{CEX}	Collector Cut-Off Current	-	50	nA	V _{EB} =0.5V, V _{CE} =30V
I_{CEO}	Collector Cut-Off Current	-	10	nA	V _{CE} =10V, I _B =0
I_{EBO}	Emitter Cut-Off Current	-	10	nA	V _{EB} =3V, I _C =0
I_{BEX}	Base Cut-Off Current	-	50	nA	V _{CE} =30V, V _{EB} =0.5V
V_{CE(sat)}*	Collector Emitter Saturation Voltage	-	0.4	V	I _C =150mA, I _B =15mA
		-	1.6		I _C =500mA, I _B =50mA
V_{BE(sat)}*	Base Emitter Saturation Voltage	-	1.3	V	I _C =150mA, I _B =15mA
		-	2.6		I _C =500mA, I _B =50mA
h_{FE}	D.C. Current Gain	75	-		V _{CE} =10V, I _C =0.1mA
		100	-		V _{CE} =10V, I _C =1mA
		100	-		V _{CE} =10V, I _C =10mA
		100	300		V _{CE} =10V*, I _C =150mA
		50	-		V _{CE} =10V*, I _C =500mA
f_T	Current Gain-Bandwidth Product	200	-	MHz	V _{CE} =20V, I _C =50mA, f=100MHz
C_{ob}	Output Capacitance	-	8	pF	V _{CB} =10V, I _E =0, f=1MHz
C_{ib}	Input Capacitance	-	30	pF	V _{EB} =2V, I _C =0, f=1MHz
t_d	Delay Time	-	10	nS	V _{CC} =30V, I _C =150mA, I _{B1} =15mA
t_r	Rise Time	-	40	nS	
t_{on}	Turn on Time	-	50	nS	
t_s	Storage Time	-	80	nS	
t_f	Fall Time	-	30	nS	V _{CC} =6V, I _C =150mA, I _{B1} =I _{B2} =15mA
t_f	Turn off Time		110	nS	

*Pulse Test: Pulse Width ≤ 300μs, Duty Cycle ≤ 1%

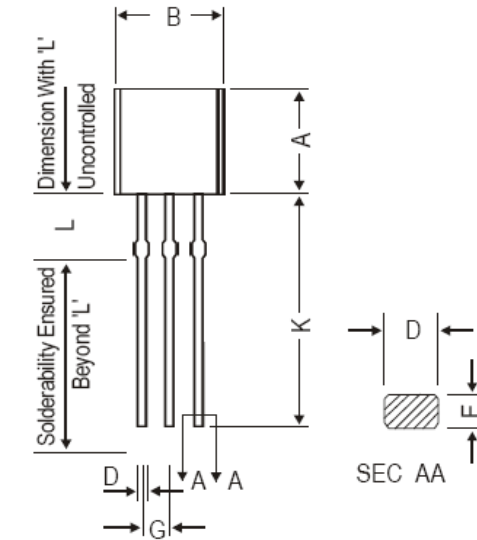


Small Signal General Purpose Transistors (PNP)

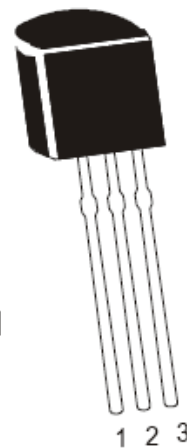
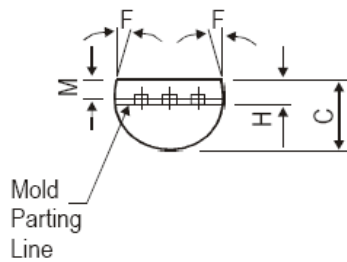
PN2907A

Dimensions in mm

TO-92



DIM	MIN.	MAX.
A	4.32	5.33
B	4.45	5.20
C	3.18	4.19
D	0.41	0.55
E	0.35	0.50
F	5 DEG	
G	1.14	1.40
H	1.20	1.40
K	12.70	—
L	1.982	2.082
M	1.03	1.20



PIN CONFIGURATION

1. EMITTER
2. BASE
3. COLLECTOR