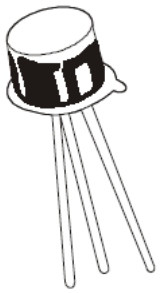
Small Signal General Purpose Transistor (PNP)



TO-18

RoHS Compliant

Features

- Switching and Linear Application
  DC to VHF Amplifier Application
- RoHS Compliant

Mechanical Data

Case:	TO-18, Metal can package
Terminals:	Solderable per MIL-STD-202, Method 208
Weight:	0.35 grams

Maximum Ratings *(T Ambient=25ºC unless noted otherwise)*

Symbol	Description	2N2907A	Unit
V_{CBO}	Collector-Base Voltage	60	V
V_{CEO}	Collector-Emitter 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	400	mW
	Power Dissipation Derate above T_A=25°C	2.28	mW/° C
	Power Dissipation at T_C=25°C	1.8	W
	Power Dissipation Derate above T_C=25°C	10.3	mW/° C
T_J, T_{STG}	Operating Junction and Storage Temperature Range	-65 to +200	° C

Electrical Characteristics *(T Ambient=25ºC unless noted otherwise)*

Symbol	Description	Min.	Max.	Unit	Conditions
V_{CBO}	Collector-Base Voltage	60	-	V	I_C=10µA, I_E=0
*V_{CEO}	Collector-Emitter Voltage	60	-	V	I_C=10mA, I_B=0
V_{EBO}	Emitter-Base Voltage	5.0	-	V	I_E=10µA, I_C=0
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
*$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	-	0.4	V	I_C=150mA, I_B=15mA
		-	1.6	V	I_C=500mA, I_B=50mA
*$V_{BE(sat)}$	Base-Emitter Saturation Voltage	-	1.3	V	I_C=150mA, I_B=15mA
		-	2.6	V	I_C=500mA, I_B=50mA
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_{CE}=30V, V_{BE}=0.5V
I_B	Base Current	-	50	nA	V_{CE}=30V, V_{BE}=0.5V
**f_t	Transition Frequency	200	-	MHz	I_C=50mA, V_{CE}=20V, f=100MHz
C_{ob}	Out-Put Capacitance	-	8.0	pF	V_{CB}=10V, I_E=0, f=100KHz
C_{ib}	In-Put Capacitance	-	30	pF	V_{BE}=2V, I_C=0, f=100KHz
t_d	Delay Time	-	10	nS	I_C=150mA, I_{B1}=15mA
t_r	Rise Time	-	40	nS	V_{CC}=30V
t_{on}	Turn-On Time	-	45	nS	
t_s	Storage Time	-	80	nS	I_C=150mA, I_{B1}=I_{B2}=15mA
t_f	Fall Time	-	30	nS	V_{CC}=6V
t_{off}	Turn-Off Time	-	100	nS	

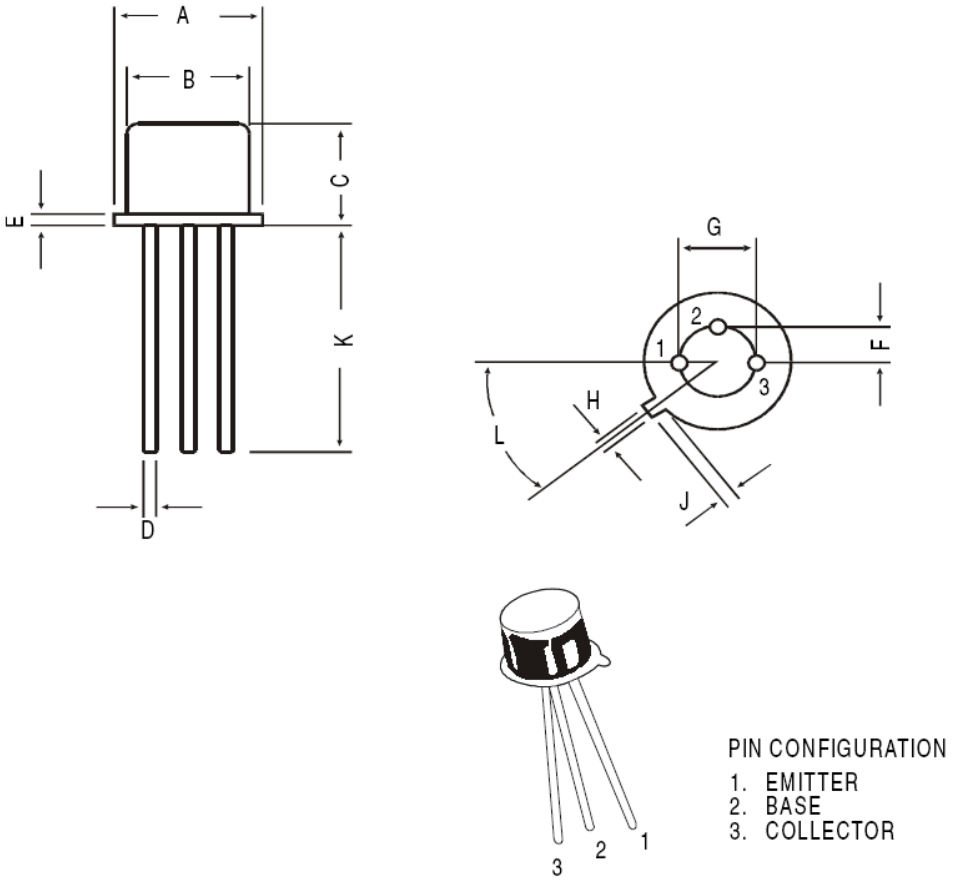
***Pulse Test: -Pulse Width=300µs, Duty Cycle=2%**

2N2907A

****ft is defined as the frequency at which \hfe/ extrapolates to unity**

Dimensions in mm

TO-18



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	

All diminsions in mm.

PIN CONFIGURATION
1. EMITTER
2. BASE
3. COLLECTOR

Packing Information:

Standard Pack	
Details	Net Weight/Qty.
1k/polybag	350gm/1k pcs

Carton Information:

Inner Carton Box	
Size	Qty.
3’ x 7.5’ x 7.5’	5k pcs

Outer Carton Box		
Size	Qty.	Gross Weight
17’ x 15’ x 13.5’	80k pcs	34kgs

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