



浩畅半导体
www.szhaochang.cn

2N2907A TRANSISTOR (PNP)

TO-92 Plastic-Encapsulate Transistors

产
品
规
格
书

承
认
书

客户确认：

公司签章：

部门	工程部	品保部	采购部
签名			
日期			



2N2907A

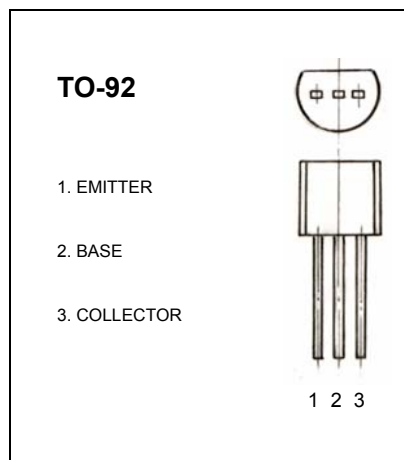
TRANSISTOR (PNP)

FEATURES

Complementary NPN Type available (MPS2222A)

MAXIMUM RATINGS (T_A=25°C unless otherwise noted)

Symbol	Parameter	Value	Units
V _{CB0}	Collector-Base Voltage	-60	V
V _{CEO}	Collector-Emitter Voltage	-60	V
V _{EBO}	Emitter-Base Voltage	-5	V
I _C	Collector Current -Continuous	-0.6	A
P _C	Collector Power Dissipation	0.625	W
T _J	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55-150	°C



ELECTRICAL CHARACTERISTICS (T_{amb}=25°C unless otherwise specified)

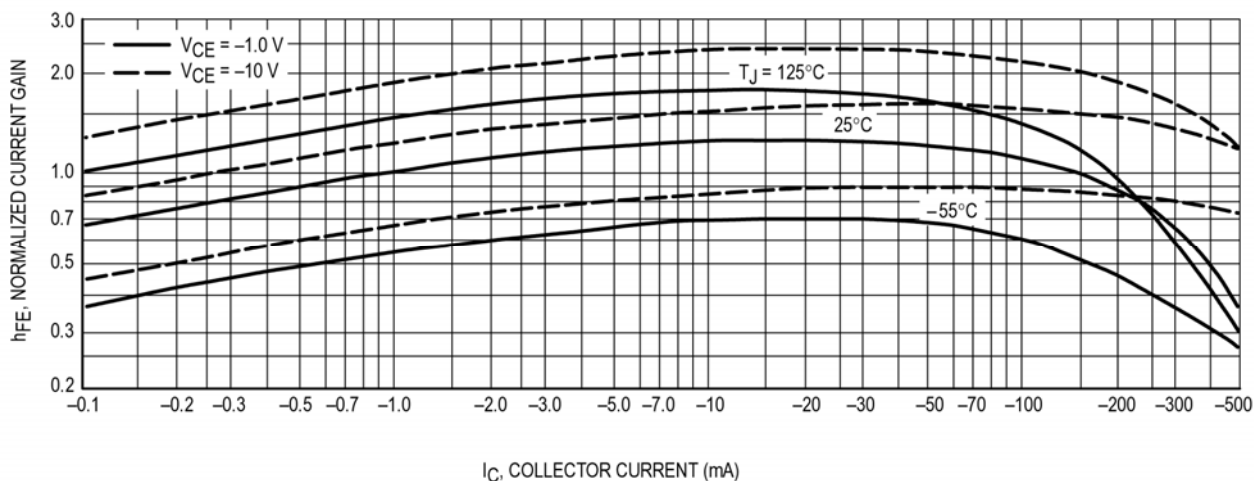
Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	V _{(BR)CBO}	I _C =-10μA, I _E =0	-60			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C =-10mA, I _B =0	-60			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =-10μA, I _C =0	-5			V
Collector cut-off current	I _{CBO}	V _{CB} =-50V, I _E =0			-10	nA
Collector cut-off current	I _{CEX}	V _{CE} =-30V, V _{EB(off)} =-0.5V			-50	nA
Emitter cut-off current	I _{EBO}	V _{EB} =-3V, I _C =0			-10	nA
DC current gain	h _{FE(1)}	V _{CE} =-10V, I _C =-0.1mA	78			
	h _{FE(2)}	V _{CE} =-10V, I _C =-150mA	100		300	
	h _{FE(3)}	V _{CE} =-10V, I _C =-500mA	52			
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =-150mA, I _B =-15mA			-0.4	V
	V _{CE(sat)}	I _C =-500mA, I _B =-50mA			-0.67	V
Base-emitter saturation voltage	V _{BE(sat)}	I _C =-150mA, I _B =-15mA			-1	V
	V _{BE(sat)}	I _C =-500mA, I _B =-50mA			-1.2	V
Transition frequency	f _T	V _{CE} =-20V, I _C =-50mA, f=100MHz	200			MHz
Delay time	t _d	V _{CC} =-30V, I _C =-150mA, I _{B1} =-15mA			10	nS
Rise time	t _r				25	nS
Storage time	t _s	V _{CC} =-6V, I _C =-150mA, I _{B1} =I _{B2} =-15mA			225	nS
Fall time	t _f				60	nS

CLASSIFICATION OF h_{FE(2)}

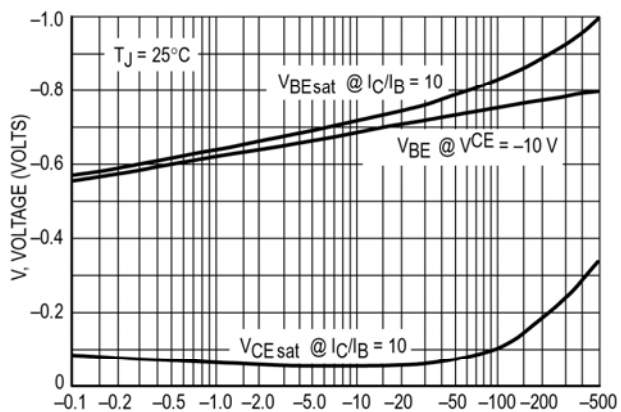
Rank	L	H
Range	100-200	200-300

Typical Characteristics

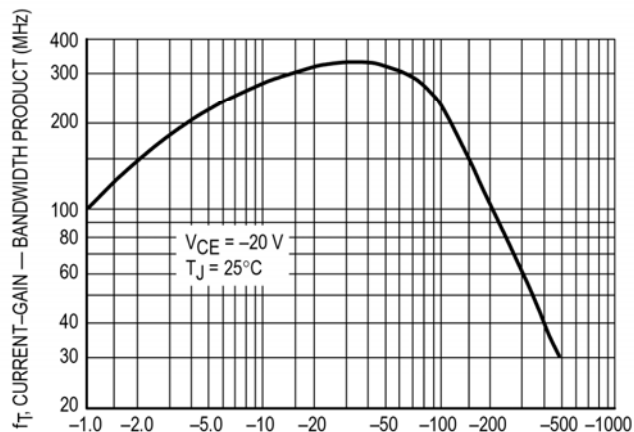
2N2907A



DC Current Gain



“On” Voltage



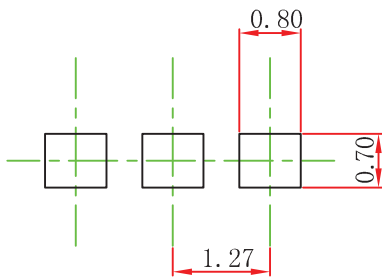
Current-Gain — Bandwidth Product

TO-92 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	3.300	3.700	0.130	0.146
A1	1.100	1.400	0.043	0.055
b	0.380	0.550	0.015	0.022
c	0.360	0.510	0.014	0.020
D	4.300	4.700	0.169	0.185
D1	3.430		0.135	
E	4.300	4.700	0.169	0.185
e	1.270 TYP		0.050 TYP	
e1	2.440	2.640	0.096	0.104
L	14.100	14.500	0.555	0.571
Φ		1.600		0.063
h	0.000	0.380	0.000	0.015

TO-92 Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.