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Manufacturers of World Class Discrete Semiconductors

2N3905
2N3906

PNP SILICON TRANSISTOR

JEDEC T0-92 CASE



DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N3905, 2N3906 types are molded epoxy Silicon PNP Transistors designed for general purpose amplifier and switching applications. The NPN complementary types are 2N3903, 2N3904.

MAXIMUM RATINGS (T_A=25°C)

	SYMBOL		UNIT
Collector-Base Voltage	V _{CB0}	40	V
Collector-Emitter Voltage	V _{CEO}	40	V
Emitter-Base Voltage	V _{EBO}	5.0	V
Collector Current	I _C	200	mA
Power Dissipation	P _D	625	mW
Operating & Storage Junction Temperature	T _J , T _{stg}	-55 TO +150	°C
Thermal Resistance	θ _{JA}	0.357	°C/mW

ELECTRICAL CHARACTERISTICS (T_A=25°C)

SYMBOL	TEST CONDITIONS	2N3905		2N3906		UNIT
		MIN	MAX	MIN	MAX	
I _{CEV}	V _{CE} =30V, V _{BE} (off)=3.0V		50		50	nA
BV _{CB0}	I _C =10μA	40		40		V
BV _{CEO}	I _C =1.0mA	40		40		V
BV _{EBO}	I _E =10μA	5.0		5.0		V
V _{CE} (SAT)	I _C =10mA, I _B =1.0mA		0.25		0.25	V
V _{CE} (SAT)	I _C =50mA, I _B =5.0mA		0.4		0.4	V
V _{BE} (SAT)	I _C =10mA, I _B =1.0mA	0.65	0.85	0.65	0.85	V
V _{BE} (SAT)	I _C =50mA, I _B =5.0mA		0.95		0.95	V
h _{FE}	V _{CE} =1.0V, I _C =0.1mA	30		60		
h _{FE}	V _{CE} =1.0V, I _C =1.0mA	40		80		
h _{FE}	V _{CE} =1.0V, I _C =10mA	50	150	100	300	
h _{FE}	V _{CE} =1.0V, I _C =50mA	30		60		
h _{FE}	V _{CE} =1.0V, I _C =100mA	15		30		
h _{fe}	V _{CE} =1.0V, I _C =1.0mA, f=1.0kHz	50	200	100	400	
f _T	V _{CE} =20V, I _C =10mA, f=100MHz	200		250		MHz
C _{ob}	V _{CB} =5.0V, f=100kHz		4.5		4.5	pF
C _{ib}	V _{BE} =0.5V, f=100kHz		10		10	pF
NF	V _{CE} =5.0V, I _C =100μA, R _S =1.0KΩ, f=10Hz TO 15.7kHz		5.0		4.0	dB
t _{off}	V _{CC} =3.0V, I _C =10mA, I _{B1} =I _{B2} =1.0mA		260		300	ns
t _{on}	V _{CC} =3.0V, V _{BE} (OFF)=0.5V, I _C =10mA, I _{B1} =1.0mA		70		70	ns