

New Jersey Semi-Conductor Products, Inc.

20 STERN AVE.
 SPRINGFIELD, NEW JERSEY 07081
 U.S.A.

TELEPHONE: (973) 376-2922
 (212) 227-6005
 FAX: (973) 376-8960

2N4904 THRU 2N4906 PNP
 2N4913 THRU 2N4915 NPN

COMPLEMENTARY SILICON POWER
 TRANSISTORS

JEDEC TO-3 CASE

	SYMBOL	2N4904 2N4913	2N4905 2N4914	2N4906 2N4915	UNIT
Collector-Base Voltage	V _{CB0}	40	60	80	V
Collector-Emitter Voltage	V _{CEO}	40	60	80	V
Emitter-Base Voltage	V _{EB0}		5.0		V
Collector Current	I _C		5.0		A
Base Current	I _B		1.0		A
Power Dissipation	P _D		87.5		W
Operating and Storage Junction Temperature	T _J , T _{STG}	-65 to +200			°C
Thermal Resistance	θ _{JC}	2.0			°C/W

ELECTRICAL CHARACTERISTICS (T_C=25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	PNP TYPES		NPN TYPES		UNIT
		MIN	MAX	MIN	MAX	
I _{CB0}	V _{CB} =Rated V _{CB0}		0.1		1.0	mA
I _{CEO}	V _{CE} =Rated V _{CEO}		1.0		1.0	mA
I _{CEV}	V _{CE} =Rated V _{CEO} , V _{BE} (OFF)=1.5V		0.1		1.0	mA
I _{CEV}	V _{CE} =Rated V _{CEO} , V _{BE} (OFF)=1.5V, T _C =150°C		2.0		2.0	mA
I _{EB0}	V _{BE} =5.0V		1.0		1.0	mA
BV _{CEO}	I _C =0.2A (2N4904, 2N4913)	40		40		V
BV _{CEO}	I _C =0.2A (2N4905, 2N4914)	60		60		V
BV _{CEO}	I _C =0.2A (2N4906, 2N4915)	80		80		V
V _{CE} (SAT)	I _C =2.5A, I _B =250mA		1.0		1.0	V
V _{CE} (SAT)	I _C =5.0A, I _B =1.0A		1.5		1.5	V
V _{BE} (ON)	V _{CE} =2.0V, I _C =2.5A		1.4		1.4	V
h _{FE}	V _{CE} =2.0V, I _C =2.5A	25	100	25	100	
h _{FE}	V _{CE} =2.0V, I _C =5.0A	7.0	-	7.0	-	
h _{fe}	V _{CE} =10V, I _C =500mA, f=1.0kHz	40	-	20	-	
f _T	V _{CE} =10V, I _C =1.0A, f=1.0MHz	4.0		4.0		MHz

NJ Semi-Conductors reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by NJ Semi-Conductors is believed to be both accurate and reliable at the time of going to press. However, NJ Semi-Conductors assumes no responsibility for any errors or omissions discovered in its use. NJ Semi-Conductors encourages customers to verify that datasheets are current before placing orders.

Quality Semi-Conductors

