

CentralTM Semiconductor Corp.

145 Adams Avenue, Hauppauge, NY 11788 USA
Tel: (631) 435-1110 • Fax: (631) 435-1824

Manufacturers of World Class Discrete Semiconductors

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

COMPLEMENTARY SILICON POWER
TRANSISTORS

JEDEC TO-3 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N4904, 4913 series types are complementary silicon power transistors manufactured by the epitaxial base process, mounted in a hermetically sealed metal case, designed for general purpose amplifier and switching application.

MAXIMUM RATINGS ($T_C=25^\circ\text{C}$)

	SYMBOL	2N4904 2N4913	2N4905 2N4914	2N4906 2N4915	UNIT
Collector-Base Voltage	V_{CB0}	40	60	80	V
Collector-Emitter Voltage	V_{CE0}	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			$^\circ\text{C}$
Thermal Resistance	θ_{JC}	2.0			$^\circ\text{C}/\text{W}$

ELECTRICAL CHARACTERISTICS ($T_C=25^\circ\text{C}$ unless otherwise noted)

SYMBOL	TEST CONDITIONS	PNP TYPES		NPN TYPES		UNIT
		MIN	MAX	MIN	MAX	
I_{CB0}	$V_{CB}=\text{Rated } V_{CB0}$		0.1		1.0	mA
I_{CE0}	$V_{CE}=\text{Rated } V_{CE0}$		1.0		1.0	mA
I_{CEV}	$V_{CE}=\text{Rated } V_{CE0}, V_{BE}(\text{OFF})=1.5\text{V}$		0.1		1.0	mA
I_{CEV}	$V_{CE}=\text{Rated } V_{CE0}, V_{BE}(\text{OFF})=1.5\text{V}, T_C=150^\circ\text{C}$		2.0		2.0	mA
I_{EB0}	$V_{BE}=5.0\text{V}$		1.0		1.0	mA
BV_{CE0}	$I_C=0.2\text{A}$ (2N4904, 2N4913)	40		40		V
BV_{CE0}	$I_C=0.2\text{A}$ (2N4905, 2N4914)	60		60		V
BV_{CE0}	$I_C=0.2\text{A}$ (2N4906, 2N4915)	80		80		V
$V_{CE}(\text{SAT})$	$I_C=2.5\text{A}, I_B=250\text{mA}$		1.0		1.0	V
$V_{CE}(\text{SAT})$	$I_C=5.0\text{A}, I_B=1.0\text{A}$		1.5		1.5	V
$V_{BE}(\text{ON})$	$V_{CE}=2.0\text{V}, I_C=2.5\text{A}$		1.4		1.4	V
h_{FE}	$V_{CE}=2.0\text{V}, I_C=2.5\text{A}$	25	100	25	100	
h_{FE}	$V_{CE}=2.0\text{V}, I_C=5.0\text{A}$	7.0	-	7.0	-	
h_{fe}	$V_{CE}=10\text{V}, I_C=500\text{mA}, f=1.0\text{kHz}$	40	-	20	-	
f_T	$V_{CE}=10\text{V}, I_C=1.0\text{A}, f=1.0\text{MHz}$	4.0		4.0		MHz



LittleDiode supplies new, hard to find or obsolete electronic components and semiconductors all over the world.

With over two million different components listed you are sure to find the part you need.

Feel free to visit us today at our online store:

LittleDiode.com

Looking forward to providing you with the best possible service.