

# New Jersey Semi-Conductor Products, Inc.

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

2N6430 2N6431 NPN  
2N6432 2N6433 PNP

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

## COMPLEMENTARY SILICON TRANSISTOR

### TO-18

#### MAXIMUM RATINGS (T<sub>A</sub> = 25°C)

	SYMBOL	2N6430	2N6431	UNITS
		2N6432	2N6433	
Collector-Base Voltage	V <sub>CBO</sub>	200	300	V
Collector-Emitter Voltage	V <sub>CEO</sub>	200	300	V
Emitter-Base Voltage (NPN Types)	V <sub>EBO</sub>	6.0	6.0	V
Emitter-Base Voltage (PNP Types)	V <sub>EBO</sub>	5.0	5.0	V
Collector Current	I <sub>C</sub>		100	mA
Power Dissipation	P <sub>D</sub>		500	mW
Power Dissipation (T <sub>C</sub> = 25°C)	P <sub>D</sub>		1.8	W
Operating and Storage				
Junction Temperature	T <sub>J</sub> , T <sub>stg</sub>	-65 to +200		°C
Thermal Resistance	θ <sub>JA</sub>	0.35		°C/mW
Thermal Resistance	θ <sub>JC</sub>	97.2		°C/W

#### ELECTRICAL CHARACTERISTICS (T<sub>A</sub> = 25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	2N6430		2N6432		UNITS
		2N6431	2N6433	2N6432	2N6433	
		MIN	MAX	MIN	MAX	
I <sub>CBO</sub>	V <sub>CB</sub> = 160V (2N6430, 2N6432)		0.1		0.25	μA
I <sub>CBO</sub>	V <sub>CB</sub> = 200V (2N6431, 2N6433)		0.1		0.25	μA
I <sub>EBO</sub>	V <sub>EB</sub> = 4.0V		0.1		-	μA
I <sub>EBO</sub>	V <sub>BE</sub> = 3.0V		-		0.1	μA
BV <sub>CBO</sub>	I <sub>C</sub> = 0.1mA (2N6430, 2N6432)	200		200		V
BV <sub>CBO</sub>	I <sub>C</sub> = 0.1mA (2N6431, 2N6433)	300		300		V
BV <sub>CEO</sub>	I <sub>C</sub> = 1.0mA (2N6430, 2N6432)	200		200		V
BV <sub>CEO</sub>	I <sub>C</sub> = 1.0mA (2N6431, 2N6433)	300		300		V
BV <sub>EBO</sub>	I <sub>E</sub> = 0.1mA	6.0		5.0		V
V <sub>CE(SAT)</sub>	I <sub>C</sub> = 20mA, I <sub>B</sub> = 2.0mA		0.5		0.5	V
V <sub>BE(SAT)</sub>	I <sub>C</sub> = 20mA, I <sub>B</sub> = 2.0mA		0.9		0.9	V
h <sub>FE</sub>	V <sub>CE</sub> = 10V, I <sub>C</sub> = 1.0mA	25		25		
h <sub>FE</sub>	V <sub>CE</sub> = 10V, I <sub>C</sub> = 10mA	40		40		
h <sub>FE</sub>	V <sub>CE</sub> = 10V, I <sub>C</sub> = 30mA	50	200	30	150	



NJ Semi-Conductors reserves the right to change test conditions, parameters 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**