

# New Jersey Semi-Conductor Products, Inc.

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## 2N4918

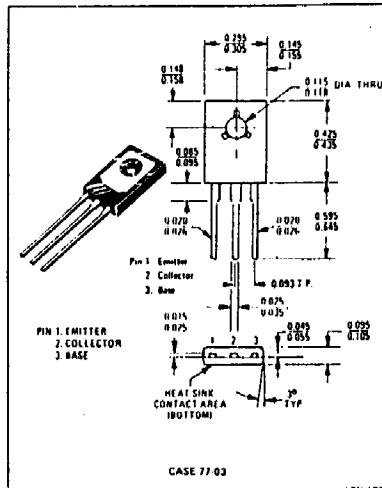
MEDIUM-POWER PLASTIC PNP SILICON TRANSISTOR

### \*MAXIMUM RATINGS

Ratings	Symbol		Unit
Collector-Emitter Voltage	V <sub>CEO</sub>	40	Vdc
Collector-Base Voltage	V <sub>CB</sub>	40	Vdc
Emitter-Base Voltage	V <sub>EB</sub>	-5.0...	Vdc
Collector Current - Continuous (1)	I <sub>C</sub> *	+1.0... -3.0...	Adc
Base Current	I <sub>B</sub>	+1.0...	Adc
Total Device Dissipation @ T <sub>C</sub> = 25°C Derate above 25°C	P <sub>D</sub>	30 0.24	Watts W/ <sup>o</sup> C
Operating & Storage Junction Temperature Range	T <sub>J</sub> , T <sub>stg</sub>	-65 to +150	°C

### THERMAL CHARACTERISTICS (2)

Characteristic	Symbol	2N4918	Unit
Thermal Resistance, Junction to Case	θ <sub>JC</sub>	4.	°C/W



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

Characteristic	Symbol	Min	Max	Unit
<b>OFF CHARACTERISTICS</b>				
Collector-Emitter Sustaining Voltage (1) (I <sub>C</sub> = 0.1 Adc, I <sub>B</sub> = 0)	V <sub>CEO(sus)</sub>	40	—	Vdc
Collector Cutoff Current (V <sub>CE</sub> = 20 Vdc, I <sub>B</sub> = 0)	I <sub>CEO</sub>	—	0.5	mAdc
Collector Cutoff Current (V <sub>CE</sub> = Rated V <sub>CEO</sub> , V <sub>BE(off)</sub> = 1.5 Vdc) (V <sub>CE</sub> = Rated V <sub>CEO</sub> , V <sub>BE(off)</sub> = 1.5 Vdc, T <sub>C</sub> = 125°C)	I <sub>CEX</sub>	—	0.1 0.5	mAdc
Collector Cutoff Current (V <sub>CB</sub> = Rated V <sub>CB</sub> , I <sub>E</sub> = 0)	I <sub>CBO</sub>	—	0.1	mAdc
Emitter Cutoff Current (V <sub>BE</sub> = 5.0 Vdc, I <sub>C</sub> = 0)	I <sub>EBO</sub>	—	1.0	mAdc
<b>ON CHARACTERISTICS</b>				
DC Current Gain (1) (I <sub>C</sub> = 50 mAdc, V <sub>CE</sub> = 1.0 Vdc) (I <sub>C</sub> = 500 mAdc, V <sub>CE</sub> = 1.0 Vdc) (I <sub>C</sub> = 1.0 Adc, V <sub>CE</sub> = 1.0 Vdc)	h <sub>FE</sub>	40 20 10	— 100 —	—
Collector-Emitter Saturation Voltage (1) (I <sub>C</sub> = 1.0 Adc, I <sub>B</sub> = 0.1 Adc)	V <sub>CE(sat)</sub>	—	0.6	Vdc
Base-Emitter Saturation Voltage (1) (I <sub>C</sub> = 1.0 Adc, I <sub>B</sub> = 0.1 Adc)	V <sub>BE(sat)</sub>	—	1.3	Vdc
Base-Emitter On Voltage (1) (I <sub>C</sub> = 1.0 Adc, V <sub>CE</sub> = 1.0 Vdc)	V <sub>BE(on)</sub>	—	1.3	Vdc
<b>SMALL-SIGNAL CHARACTERISTICS</b>				
Current-Gain - Bandwidth Product (I <sub>C</sub> = 250 mAdc, V <sub>CE</sub> = 10 Vdc, f = 1.0 MHz)	f <sub>T</sub>	3.0	—	MHz
Output Capacitance (V <sub>CB</sub> = 10 Vdc, I <sub>E</sub> = 0, f = 100 kHz)	C <sub>ob</sub>	—	100	pF
Small-Signal Current Gain (I <sub>C</sub> = 250 mAdc, V <sub>CE</sub> = 10 Vdc, f = 1.0 kHz)	h <sub>fe</sub>	25	—	—

\*Indicates JEDEC Registered Data for 2N4918 Series.

(1) Pulse Test: PW ≈ 300 μs, Duty Cycle ≈ 2.0%

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