

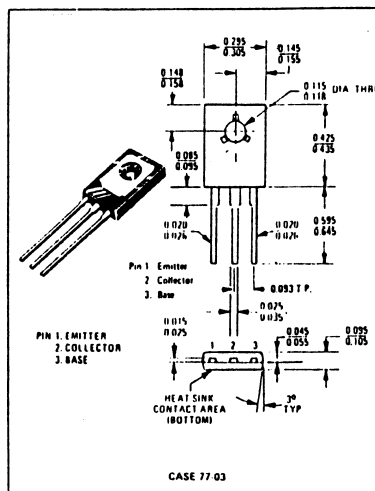
2N4918 MEDIUM-POWER PLASTIC PNP SILICON TRANSISTOR

*MAXIMUM RATINGS

Ratings	Symbol		Unit
Collector-Emitter Voltage	V_{CEO}	40	Vdc
Collector-Base Voltage	V_{CB}	40	Vdc
Emitter-Base Voltage	V_{EB}	-5.0	Vdc
Collector Current - Continuous (1)	I_C	-1.0	Adc
		-3.0	Adc
Base Current	I_B	-1.0	Adc
Total Device Dissipation @ $T_C = 25^\circ\text{C}$ Derate above 25°C	P_D	30 0.24	Watts W/ $^\circ\text{C}$
Operating & Storage Junction Temperature Range	T_J, T_{stg}	-65 to +150	$^\circ\text{C}$

THERMAL CHARACTERISTICS (2)

Characteristic	Symbol	2N49	Unit
Thermal Resistance, Junction to Case	θ_{JC}	4	$^\circ\text{C/W}$



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

Characteristic	Symbol	Min	Max	Unit
OFF CHARACTERISTICS				
Collector-Emitter Sustaining Voltage (1) ($I_C = 0.1 \text{ Adc}, I_B = 0$)	$V_{CEO(sus)}$	40	—	Vdc
Collector Cutoff Current ($V_{CE} = 20 \text{ Vdc}, I_B = 0$)	I_{CEO}	—	0.5	mAdc
Collector Cutoff Current ($V_{CE} = \text{Rated } V_{CEO}, V_{BE(off)} = 1.5 \text{ Vdc}$) ($V_{CE} = \text{Rated } V_{CEO}, V_{BE(off)} = 1.5 \text{ Vdc}, T_C = 125^\circ\text{C}$)	I_{CEX}	—	0.1 0.5	mAdc
Collector Cutoff Current ($V_{CB} = \text{Rated } V_{CB}, I_E = 0$)	I_{CBO}	—	0.1	mAdc
Emitter Cutoff Current ($V_{BE} = 5.0 \text{ Vdc}, I_C = 0$)	I_{EBO}	—	1.0	mAdc
ON CHARACTERISTICS				
DC Current Gain (1) ($I_C = 50 \text{ mAdc}, V_{CE} = 1.0 \text{ Vdc}$) ($I_C = 500 \text{ mAdc}, V_{CE} = 1.0 \text{ Vdc}$) ($I_C = 1.0 \text{ Adc}, V_{CE} = 1.0 \text{ Vdc}$)	h_{FE}	40 20 10	— 100 —	—
Collector-Emitter Saturation Voltage (1) ($I_C = 1.0 \text{ Adc}, I_B = 0.1 \text{ Adc}$)	$V_{CE(sat)}$	—	0.6	Vdc
Base-Emitter Saturation Voltage (1) ($I_C = 1.0 \text{ Adc}, I_B = 0.1 \text{ Adc}$)	$V_{BE(sat)}$	—	1.3	Vdc
Base-Emitter On Voltage (1) ($I_C = 1.0 \text{ Adc}, V_{CE} = 1.0 \text{ Vdc}$)	$V_{BE(on)}$	—	1.3	Vdc
SMALL-SIGNAL CHARACTERISTICS				
Current-Gain - Bandwidth Product ($I_C = 250 \text{ mAdc}, V_{CE} = 10 \text{ Vdc}, f = 1.0 \text{ MHz}$)	f_T	3.0	—	MHz
Output Capacitance ($V_{CB} = 10 \text{ Vdc}, I_E = 0, f = 100 \text{ kHz}$)	C_{ob}	—	100	pF
Small-Signal Current Gain ($I_C = 250 \text{ mAdc}, V_{CE} = 10 \text{ Vdc}, f = 1.0 \text{ kHz}$)	h_{fe}	25	—	—

*Indicates JEDEC Registered Data for 2N4918 Series.

(1) Pulse Test: PW $\approx 300 \mu\text{s}$, Duty Cycle $\approx 2.0\%$

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.

