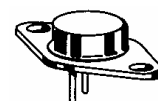


NPN SILICON TRANSISTOR

Devices

2N4911

**TO-66
Package**

- Medium Power
- Switching and Amplifier Applications

MAXIMUM RATINGS (PER LEG)

Ratings	Symbol	Value	Units
Collector-Emitter Voltage	V_{CEO}	60	Vdc
Collector-Base Voltage	V_{CB}	60	Vdc
Emitter-Base Voltage	V_{EB}	5.0	Vdc
Collector Current – Continuous Peak (1)	I_C	1.0	Adc
Base Current – Continuous	I_B	1.0	Adc
Total Power Dissipation @ $T_C = 25^\circ\text{C}$ Derate above 250C	P_D	25 0.143	Watts $\text{W}/^\circ\text{C}$
Operating and Storage Junction Temperature Range	T_J, T_{stg}	-65 to +200	$^\circ\text{C}$

THERMAL CHARACTERISTICS

Thermal Resistance – Junction to Case	$R_{\theta JC}$	7.0	$^\circ\text{C}/\text{W}$
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(1) Pulse Test: Pulse Width = 10 ms, Duty Cycle < 10%

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

CHARACTERISTICS	Symbol	Min	Max	Unit
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OFF CHARACTERISTICS

Collector-Emitter Sustaining Voltage $I_C = 0.1 \text{ Adc}, I_B = 0$	$V_{CEO(sus)}$	60		Vdc
Collector Cutoff Current $V_{CE} = 30 \text{ Vdc}, I_B = 0$ $V_{CE} = \text{Rated } V_{CB}, V_{be} \text{ off} = 1.5 \text{ Vdc}$	I_{CEO} I_{CEX}		0.5 0.1	mAdc mAdc
Collector Cutoff Current $V_{CE} = 90 V_{CB}$ $V_{CE} = 90 V_{CB}, T_C = 150^\circ$	I_{CES}		10 75	V_{Adc} V_{Adc}
Emitter Cutoff Current $V_{BE} = 5.0 \text{ Vdc}, I_C = 0$	I_{EBO}		1.0	mAdc

ON CHARACTERISTICS

DC Current Gain $I_C = 50 \mu\text{A}$, $V_{CE} = 1.0 \text{ Vdc}$ $I_C = .5 \text{ A}$, $V_{CE} = 1.0 \text{ Vdc}$	h_{FE}	40 20	100	Vdc
Collector-Emitter Saturation Voltage $I_C = 1.0 \text{ A}$, $I_B = 100 \text{ mA}$	$V_{CE(sat)}$		0.6	Vdc
Base-Emitter Saturation Voltage $I_C = 1.0 \text{ A}$, $I_B = 100 \text{ mA}$	$V_{BE(sat)}$		1.3	Vdc

DYNAMIC CHARACTERISTICS

CHARACTERISTICS	Symbol	Min	Max	Unit
Forward Current Transfer Ratio $I_C = .25 \text{ A}$, $V_{CE} = 10 \text{ Vdc}$, $f = 1.0 \text{ kHz}$	h_{fe}	25		MHz
Output Capacitance $V_{CB} = 10 \text{ Vdc}$, $I_E = 0$, $f = 100 \text{ kHz}$	C_{ob}		100	p^F

(1) Pulse Test: Pulse Width = 300 μ s, Duty Cycle $\leq 2.0\%$