

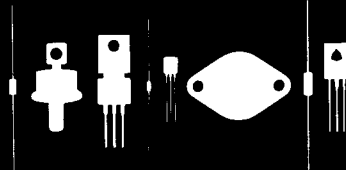
Central  
Semiconductor Corp.

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Central<sup>TM</sup>  
Semiconductor Corp.

145 Adams Avenue  
Hauppauge, New York 11788



2N4901	2N4902	2N4903	PNP
2N5067	2N5068	2N5069	NPN

COMPLEMENTARY SILICON POWER  
TRANSISTORS

JEDEC TO-3 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N4901, 2N5067 series types are complementary silicon power transistors manufactured by the epitaxial base process, mounted in a hermetically sealed metal case designed for general purpose switching and amplifier applications.

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

	<u>SYMBOL<sup>1</sup></u>	<u>2N4901</u> <u>2N5067</u>	<u>2N4902</u> <u>2N5068</u>	<u>2N4903</u> <u>2N5069</u>	<u>UNIT</u>
Collector-Base Voltage	V <sub>CB0</sub>	40	60	80	V
Collector-Emitter Voltage	V <sub>CEO</sub>	40	60	80	V
Emitter-Base Voltage	V <sub>EB0</sub>	5.0	5.0	5.0	V
Collector Current	I <sub>C</sub>	5.0	5.0	5.0	A
Base Current	I <sub>B</sub>	1.0	1.0	1.0	A
Power Dissipation	P <sub>D</sub>	87.5	87.5	87.5	W
Operating and Storage Junction Temperature	T <sub>J</sub> , T <sub>STG</sub>	-65 TO +200			°C
Thermal Resistance	θ <sub>JC</sub>	2.0			°C/W

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

<u>SYMBOL</u>	<u>TEST CONDITIONS</u>	<u>2N4901</u> <u>2N5067</u>		<u>2N4902</u> <u>2N5068</u>		<u>2N4903</u> <u>2N5069</u>		<u>UNIT</u>
		<u>MIN</u>	<u>MAX</u>	<u>MIN</u>	<u>MAX</u>	<u>MIN</u>	<u>MAX</u>	
I <sub>CB0</sub>	V <sub>CB</sub> =Rated V <sub>CB0</sub> (NPN types)		1.0		1.0		1.0	mA
I <sub>CB0</sub>	V <sub>CB</sub> =Rated V <sub>CB0</sub> (PNP types)		0.1		0.1		0.1	mA
I <sub>CEV</sub>	V <sub>CE</sub> =Rated V <sub>CEO</sub> , V <sub>EB</sub> (OFF)=1.5V (NPN types)		1.0		1.0		1.0	mA
I <sub>CEV</sub>	V <sub>CE</sub> =Rated V <sub>CEO</sub> , V <sub>EB</sub> (OFF)=1.5V (PNP types)		0.1		0.1		0.1	mA
I <sub>CEV</sub>	V <sub>CE</sub> =Rated V <sub>CEO</sub> , V <sub>EB</sub> (OFF)=1.5V, T <sub>C</sub> =150°C		2.0		2.0		2.0	mA
I <sub>CEO</sub>	V <sub>CE</sub> =Rated V <sub>CEO</sub>		1.0		1.0		1.0	mA
I <sub>EB0</sub>	V <sub>BE</sub> =5.0V		1.0		1.0		1.0	mA
BV <sub>CEO</sub>	I <sub>C</sub> =200mA	40		60		80		V
V <sub>CE</sub> (SAT)	I <sub>C</sub> =1.0A, I <sub>B</sub> =0.1A		0.4		0.4		0.4	V
V <sub>CE</sub> (SAT)	I <sub>C</sub> =5.0A, I <sub>B</sub> =1.0A		1.5		1.5		1.5	V
V <sub>BE</sub> (ON)	V <sub>CE</sub> =2.0V, I <sub>C</sub> =1.0A		1.2		1.2		1.2	V
h <sub>FE</sub>	V <sub>CE</sub> =2.0V, I <sub>C</sub> =1.0A	20	100	20	100	20	100	
h <sub>FE</sub>	V <sub>CE</sub> =2.0V, I <sub>C</sub> =5.0A	7.0		7.0		7.0		
h <sub>fe</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =0.5A, f=1.0kHz	20		20		20		
f <sub>T</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =1.0A, f=1.0MHz	4.0		4.0		4.0		MHz

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