

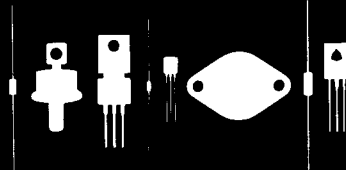
Central
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145 Adams Avenue
Hauppauge, New York 11788



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</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_{CB0}	40	60	80	V
Collector-Emitter Voltage	V_{CE0}	40	60	80	V
Emitter-Base Voltage	V_{EB0}	5.0	5.0	5.0	V
Collector Current	I_C	5.0	5.0	5.0	A
Base Current	I_B	1.0	1.0	1.0	A
Power Dissipation	P_D	87.5	87.5	87.5	W
Operating and Storage Junction Temperature	T_J, T_{STG}	-65 TO +200			$^\circ\text{C}$
Thermal Resistance	θ_{JC}	2.0			$^\circ\text{C/W}$

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_{CB0}	$V_{CB}=\text{Rated } V_{CB0}$ (NPN types)		1.0		1.0		1.0	mA
I_{CB0}	$V_{CB}=\text{Rated } V_{CB0}$ (PNP types)		0.1		0.1		0.1	mA
I_{CEV}	$V_{CE}=\text{Rated } V_{CE0}, V_{EB}(\text{OFF})=1.5\text{V}$ (NPN types)		1.0		1.0		1.0	mA
I_{CEV}	$V_{CE}=\text{Rated } V_{CE0}, V_{EB}(\text{OFF})=1.5\text{V}$ (PNP types)		0.1		0.1		0.1	mA
I_{CEV}	$V_{CE}=\text{Rated } V_{CE0}, V_{EB}(\text{OFF})=1.5\text{V}, T_C=150^\circ\text{C}$		2.0		2.0		2.0	mA
I_{CE0}	$V_{CE}=\text{Rated } V_{CE0}$		1.0		1.0		1.0	mA
I_{EB0}	$V_{BE}=5.0\text{V}$		1.0		1.0		1.0	mA
BV_{CE0}	$I_C=200\text{mA}$	40		60		80		V
$V_{CE}(\text{SAT})$	$I_C=1.0\text{A}, I_B=0.1\text{A}$		0.4		0.4		0.4	V
$V_{CE}(\text{SAT})$	$I_C=5.0\text{A}, I_B=1.0\text{A}$		1.5		1.5		1.5	V
$V_{BE}(\text{ON})$	$V_{CE}=2.0\text{V}, I_C=1.0\text{A}$		1.2		1.2		1.2	V
h_{FE}	$V_{CE}=2.0\text{V}, I_C=1.0\text{A}$	20	100	20	100	20	100	
h_{FE}	$V_{CE}=2.0\text{V}, I_C=5.0\text{A}$	7.0		7.0		7.0		
h_{fe}	$V_{CE}=10\text{V}, I_C=0.5\text{A}, f=1.0\text{kHz}$	20		20		20		
f_T	$V_{CE}=10\text{V}, I_C=1.0\text{A}, f=1.0\text{MHz}$	4.0		4.0		4.0		MHz

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