Central
Semiconductor Corp.
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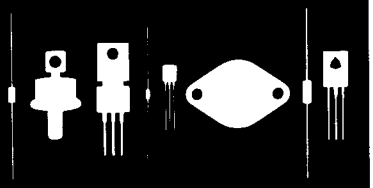

2N4901 2N4902 2N4903 PNP
2N5067 2N5068 2N5069 NPN

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°C unless otherwise noted)

	SYMBOL	2N4901 2N5067	2N4902 2N5068	2N4903 2N5069	UNIT
Collector-Base Voltage	V_{CBO}	40	60	80	V
Collector-Emitter Voltage	V_{CEO}	40	60	80	V
Emitter-Base Voltage	V_{EBO}	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		°C
Thermal Resistance	Θ_{JC}		2.0		°C/W

ELECTRICAL CHARACTERISTICS (T_C=25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	2N4901 2N5067 MIN	2N4901 2N5067 MAX	2N4902 2N5068 MIN	2N4902 2N5068 MAX	2N4903 2N5069 MIN	2N4903 2N5069 MAX	UNIT
I_{CBO}	V_{CB}=Rated V_{CBO} (NPN types)		1.0		1.0		1.0	mA
I_{CBO}	V_{CB}=Rated V_{CBO} (PNP types)		0.1		0.1		0.1	mA
I_{CEV}	V_{CE}=Rated V_{CEO}, $V_{EB(OFF)}$=1.5V (NPN types)		1.0		1.0		1.0	mA
I_{CEV}	V_{CE}=Rated V_{CEO}, $V_{EB(OFF)}$=1.5V (PNP types)		0.1		0.1		0.1	mA
I_{CEV}	V_{CE}=Rated V_{CEO}, $V_{EB(OFF)}$=1.5V, T_C=150°C		2.0		2.0		2.0	mA
I_{CEO}	V_{CE}=Rated V_{CEO}		1.0		1.0		1.0	mA
I_{EBO}	V_{BE}=5.0V		1.0		1.0		1.0	mA
BV_{CEO}	I_C=200mA	40		60		80		V
$V_{CE(SAT)}$	I_C=1.0A, I_B=0.1A		0.4		0.4		0.4	V
$V_{CE(SAT)}$	I_C=5.0A, I_B=1.0A		1.5		1.5		1.5	V
$V_{BE(ON)}$	V_{CE}=2.0V, I_C=1.0A		1.2		1.2		1.2	V
h_{FE}	V_{CE}=2.0V, I_C=1.0A	20	100	20	100	20	100	
h_{FE}	V_{CE}=2.0V, I_C=5.0A	7.0		7.0		7.0		
h_{fe}	V_{CE}=10V, I_C=0.5A, f=1.0kHz	20		20		20		
f_T	V_{CE}=10V, I_C=1.0A, f=1.0MHz	4.0		4.0		4.0		MHz

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