Central™
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Manufacturers of World Class Discrete Semiconductors

2N4912

NPN SILICON POWER TRANSISTOR

JEDEC TO-66 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N4912 is an NPN silicon power transistor 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		UNIT
Collector-Base Voltage	V_{CBO}	80	V
Collector-Emitter Voltage	V_{CEO}	80	V
Emitter-Base Voltage	V_{EBO}	5.0	V
Collector Current	I_C	1.0	A
Base Current	I_B	1.0	A
Power Dissipation	P_D	25	W
Operating and Storage Junction Temperature	T_J, T_{STG}	-65 to +200	°C
Thermal Resistance	ΘJC	7.0	°C/W

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

SYMBOL	TEST CONDITIONS	MIN	MAX	UNIT
I_{CBO}	V_{CB}=Rated V_{CBO}		0.1	mA
I_{CEO}	V_{CE}=40V		0.5	mA
I_{CEV}	V_{CE}=80V, $V_{EB(OFF)}$=1.5V		0.1	mA
I_{CEV}	V_{CE}=80V, $V_{EB(OFF)}$=1.5V, T_C=150°C		1.0	mA
I_{EBO}	V_{EB}=5.0V		1.0	mA
BV_{CEO}	I_C=0.1mA	80		V
$V_{CE(SAT)}$	I_C=1.0A, I_B=0.1A		0.6	V
$V_{BE(SAT)}$	I_C=1.0A, I_B=0.1A		1.3	V
$V_{BE(ON)}$	V_{CE}=1.0V, I_C=1.0A		1.3	V
h_{FE}	V_{CE}=1.0V, I_C=50mA	40	-	
h_{FE}	V_{CE}=1.0V, I_C=500mA	20	100	
h_{FE}	V_{CE}=1.0V, I_C=1.0A	10	-	
h_{fe}	V_{CE}=10V, I_C=250mA, f=1.0kHz	25	-	
f_T	V_{CE}=10V, I_C=250mA, f=1.0MHz	3.0		MHz
C_{ob}	V_{CB}=10V, I_E=0, f-100kHz		100	pF