

CentralTM Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors

2N5190
2N5191
2N5192

NPN Silicon Transistor
General Purpose Power

JEDEC TO-126 Case

DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N5190, 2N5191, and 2N5192 are Silicon NPN Epitaxial Base Power Transistors designed for Medium power amplifier and switching applications.

MAXIMUM RATINGS (T_A=25°C Unless otherwise noted)

		2N5190	2N5191	2N5192
Collector-Base Voltage	V _{CB0}	40V	60V	80V
Collector-Emitter Voltage	V _{CE0}	40V	60V	80V
Emitter-Base Voltage	V _{EB0}		5.0V	
Collector Current, Continuous	I _C		4.0A	
Collector Current, Peak	I _{CM}		7.0A	
Base Current	I _B		1.0A	
Power Dissipation (T _C =25°C)	P _D		40W	
Operating & Storage Junction Temperature	T _J , T _{stg}		-65 to +150°C	
Thermal Resistance, Junction to Case	θ _{J-C}		3.12°C/W	

ELECTRICAL CHARACTERISTICS (T_C=25°C)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNIT
I _{CB0}	V _{CB} =Rated V _{CB}		100	μA
I _{CEV}	V _{CE} =Rated V _{CE0} , V _{EB} =1.5V		100	μA
I _{CE0}	V _{CE} =Rated V _{CE0}		1.0	mA
I _{EB0}	V _{EB} =5.0V		1.0	mA
BV _{CE0}	I _C =0.1A	40 (2N5190) 60 (2N5191) 80 (2N5192)		V
V _{CE(s)}	I _C =1.5A, I _B =0.15A		0.6	V
V _{CE(s)}	I _C =4.0A, I _B =1.0A		1.4	V
V _{BE(on)}	V _{CE} =2.0V, I _C =1.5A		1.2	V
h _{FE}	V _{CE} =2.0V, I _C =1.5A	25	100	-
		25	100	-
		20	80	-
h _{FE}	V _{CE} =2.0V, I _C =4.0A	10	-	-
		10	-	-
		7.0	-	-
f _T	V _{CE} =10V, I _C =1.0A, f=1.0 MHz	2.0		MHz