Central™
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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 Expitaxial Base Power Transistors designed for Medium power amplifer and switching applications.

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

		2N5190	2N5191	2N5192
Collector-Base Voltage	V_{CBO}	40V	60V	80V
Collector-Emitter Voltage	V_{CEO}	40V	60V	80V
Emitter-Base Voltage	V_{EBO}		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_{CBO}	V_{CB}=Rated V_{CB}			100	uA
I_{CEV}	V_{CE}=Rated V_{CEO}, V_{EB}=1.5V			100	uA
I_{CEO}	V_{CE}=Rated V_{CEO}			1.0	mA
I_{EBO}	V_{EB}=5.0V			1.0	mA
BV_{CEO}	I_C=0.1A		40(2N5190)		V
			60(2N5191)		V
			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	2N5190	25	100	-
		2N5191	25	100	-
		2N5192	20	80	-
h_{FE}	V_{CE}=2.0V, I_C=4.0A	2N5190	10	-	-
		2N5191	10	-	-
		2N5192	7.0	-	-
f_T	V_{CE}=10V, I_C=1.0A, f=1.0 MH_Z		2.0		MH_Z