

CentralTM Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors

2N5193
2N5194
2N5195

PNP Silicon Transistor
General Purpose Power

JEDEC TO-126 Case

DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N5193, 2N5194, and 2N5195 are Silicon PNP Epitaxial Base Power Transistors designed for Medium power amplifier and switching applications.

MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$ Unless otherwise noted)

	2N5193	2N5194	2N5195
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	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 ($T_C=25^{\circ}\text{C}$)

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		1.0	mA
I _{EB0}	V _{EB} =5.0V		1.0	mA
BV _{CE0}	I _C =0.1A	40 (2N5193)		V
		60 (2N5194)		V
		80 (2N5195)		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		1.2	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	2N5193 25	100	-
		2N5194 25	100	-
		2N5195 20	80	-
h _{FE}	V _{CE} =2.0V, I _C =4.0A	2N5193 10	80	-
		2N5194 10	-	-
		2N5195 7.0	-	-
f _T	V _{CE} =10V, I _C =1.0A, f=1.0MHz	2.0		MHz