

CentralTM Semiconductor Corp.

145 Adams Avenue, Hauppauge, NY 11788 USA
Tel: (631) 435-1110 • Fax: (631) 435-1824

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 Expitaxial 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	40V	60V	80V
Collector-Emitter Voltage	40V	60V	80V
Emitter-Base Voltage		5.0V	
Collector Current, Continuous		4.0A	
Collector Current, Peak		7.0A	
Base Current		1.0A	
Power Dissipation		40W	
Operating & Storage Junction Temperature		-65 to +150°C	
Thermal Resistance, Junction to Case		3.12°C/W	

ELECTRICAL CHARACTERISTICS ($T_C=25^{\circ}\text{C}$)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNIT
I_{CB0}	$V_{CB}=\text{Rated } V_{CB}$		100	μA
I_{CEV}	$V_{CE}=\text{Rated } V_{CE0}, V_{EB}=1.5\text{V}$		100	μA
I_{CE0}	$V_{CE}=\text{Rated}$		1.0	mA
I_{EB0}	$V_{EB}=5.0\text{V}$		1.0	mA
BV_{CE0}	$I_C=0.1\text{A}$	40 (2N5193) 60 (2N5194) 80 (2N5195)		V
$V_{CE(s)}$	$I_C=1.5\text{A}, I_B=0.15\text{A}$		0.6	V
$V_{CE(s)}$	$I_C=4.0\text{A}, I_B=1.0\text{A}$		1.2	V
$V_{BE(on)}$	$V_{CE}=2.0\text{V}, I_C=1.5\text{A}$		1.2	V
h_{FE}	$V_{CE}=2.0\text{V}, I_C=1.5\text{A}$	25 (2N5193) 25 (2N5194) 20 (2N5195)	100 100 80	-
h_{FE}	$V_{CE}=2.0\text{V}, I_C=4.0\text{A}$	10 (2N5193) 10 (2N5194) 7.0 (2N5195)	80 - -	-
f_T	$V_{CE}=10\text{V}, I_C=1.0\text{A}, f=1.0\text{MHz}$	2.0		MHz