

2N5193
2N5194
2N5195

**PNP SILICON
POWER TRANSISTORS**



TO-126 CASE

CentralTM

Semiconductor Corp.

DESCRIPTION:

The CENTRAL SEMICONDUCTOR 2N5193 Series types are Silicon PNP Power Transistors, manufactured by the epitaxial base process, designed for medium power amplifier and switching applications. These devices are complementary to the NPN 2N5190 Series types.

MARKING: FULL PART NUMBER

MAXIMUM RATINGS: (T_A=25°C)

Collector-Base Voltage	V _{CBO}	40	60	80	V
Collector-Emitter Voltage	V _{CEO}	40	60	80	V
Emitter-Base Voltage	V _{EBO}		5.0		V
Continuous Collector Current	I _C		4.0		A
Base Current	I _B		1.0		A
Power Dissipation (T _C =25°C)	P _D		40		W
Operating and Storage Junction Temperature	T _J , T _{stg}		-65 to +150		°C
Thermal Resistance (Junction to Case)	θ _{JC}		3.12		°C/W

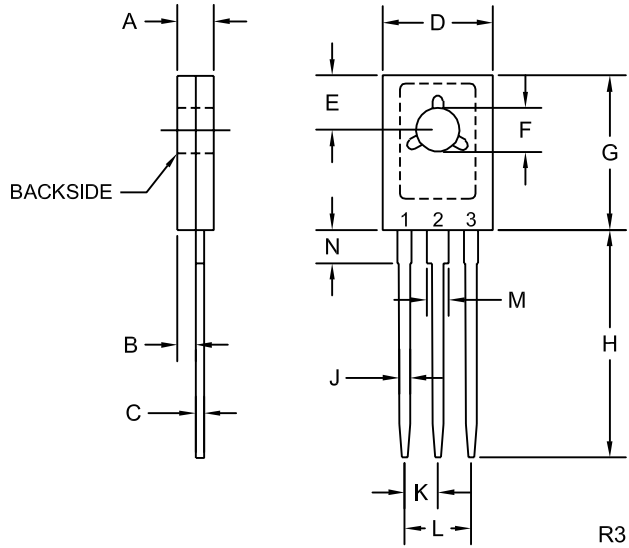
SYMBOL	2N5193	2N5194	2N5195	UNITS
V _{CBO}	40	60	80	V
V _{CEO}	40	60	80	V
V _{EBO}		5.0		V
I _C		4.0		A
I _B		1.0		A
P _D		40		W
T _J , T _{stg}		-65 to +150		°C
θ _{JC}		3.12		°C/W

ELECTRICAL CHARACTERISTICS: (T_C=25°C)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I _{CBO}	V _{CB} =Rated V _{CBO}		100	μA
I _{CEX}	V _{CE} =Rated V _{CEO} , V _{EB} =1.5V		100	μA
I _{CEO}	V _{CE} =Rated V _{CEO}		1.0	mA
I _{EBO}	V _{EB} =5.0V		1.0	mA
BV _{CEO}	I _C =100mA (2N5193)	40		V
BV _{CEO}	I _C =100mA (2N5194)	60		V
BV _{CEO}	I _C =100mA (2N5195)	80		V
V _{CE(SAT)}	I _C =1.5A, I _B =150mA		0.6	V
V _{CE(SAT)}	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 (2N5193, 2N5194)	25	100	
h _{FE}	V _{CE} =2.0V, I _C =1.5A (2N5195)	20	80	
h _{FE}	V _{CE} =2.0V, I _C =4.0A (2N5193, 2N5194)	10		
h _{FE}	V _{CE} =2.0V, I _C =4.0A (2N5195)	7.0		
f _T	V _{CE} =10V, I _C =1.0A, f=1.0MHz	2.0		MHz

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TO-126 CASE - MECHANICAL OUTLINE



SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.094	0.110	2.40	2.80
B	0.050		1.27	
C	0.015	0.030	0.38	0.75
D	0.291	0.335	7.40	8.50
E	0.148		3.75	
F	0.118	0.134	3.00	3.40
G	0.413	0.472	10.50	12.00
H	0.618		15.70	
J	0.024	0.035	0.62	0.90
K	0.089		2.25	
L	0.177		4.50	
M	0.045	0.055	1.14	1.40
N	0.083		2.10	

TO-126 (REV:R3)

LEAD CODE:
1) EMITTER
2) COLLECTOR
3) BASE

MARKING:
FULL PART NUMBER

R1 (10-February 2009)