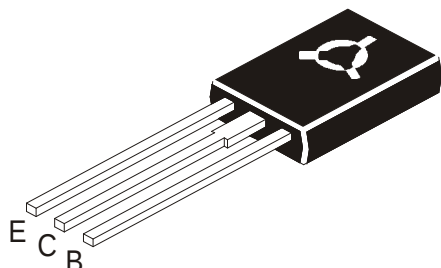


PNP EPITAXIAL SILICON POWER TRANSISTORS

2N5193, 2N5194
2N5195

TO126
Plastic Package



Use in Medium Power Amplifier and Switching Applications.

ABSOLUTE MAXIMUM RATINGS

DESCRIPTION	SYMBOL	2N5193	2N5194	2N5195	UNIT
Collector Base Voltage	V_{CBO}	40	60	80	V
Collector Emitter Voltage	V_{CEO}	40	60	80	V
Emitter Base Voltage	V_{EBO}	5			V
Collector Current Continuous	I_C	4			A
Collector Peak Current	I_{CM}	7			A
Base Current	I_B	1			A
Power Dissipation at $T_C=25^\circ\text{C}$	P_D	40			W
Operating and Storage Junction Temperature	T_j, T_{stg}	- 65 to +150			$^\circ\text{C}$

Thermal Resistance

Junction to Case	$R_{th(j-c)}$	3.12	$^\circ\text{C/W}$
------------------	---------------	------	--------------------

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

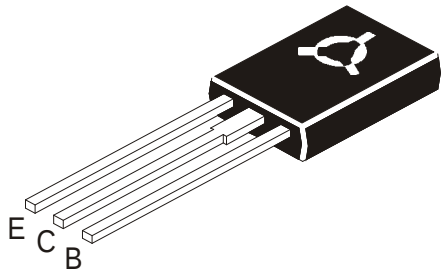
DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Collector Cut Off Current	I_{CBO}	$V_{CB}=\text{rated } V_{CB}$			100	μA
	I_{CEV}	$V_{CE}=\text{rated } V_{CEO}, V_{EB}=1.5\text{V}$			100	μA
	I_{CEO}	$V_{CE}=\text{rated } V_{CEO}$			1	mA
Emitter Cut Off Current	I_{EBO}	$V_{EB}=5\text{V}, I_C=0$			1	mA
Collector Emitter Sustaining Voltage	$*V_{CEO(sus)}$	$I_C=100\text{mA}, I_B=0$				
		2N5193	40			V
		2N5194	60			V
		2N5195	80			V
Collector Emitter Saturation Voltage	$*V_{CE(sat)}$	$I_C=1.5\text{A}, I_B=0.15\text{A}$			0.6	V
		$I_C=4\text{A}, I_B=1\text{A}$			1.2	V
Base Emitter Voltage	$*V_{BE}$	$I_C=1.5\text{A}, V_{CE}=2\text{V}$			1.2	V

*Pulsed Pulse Duration=300ms, Duty Cycle=1.5%

PNP EPITAXIAL SILICON POWER TRANSISTORS

2N5193, 2N5194
2N5195

TO126
Plastic Package



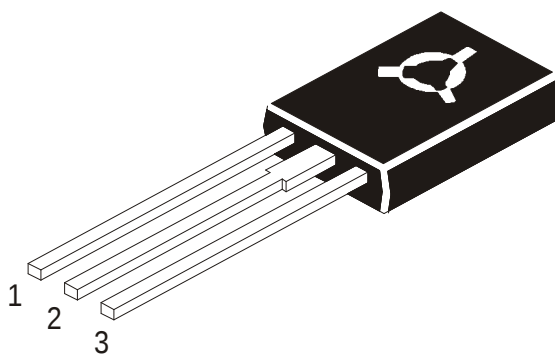
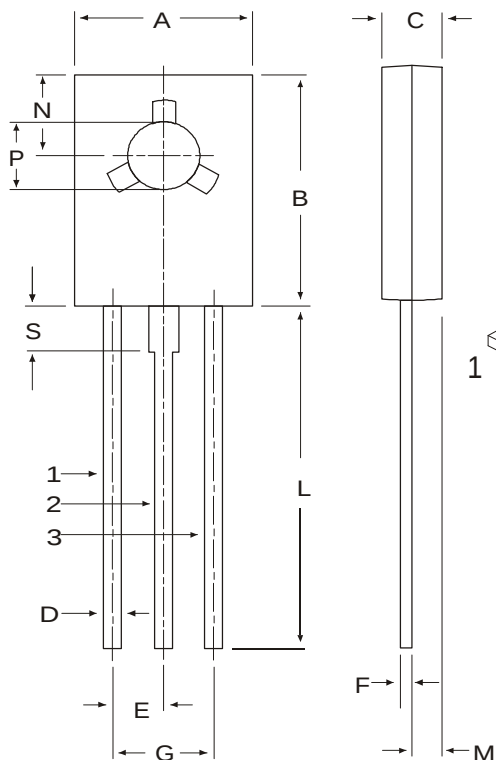
ELECTRICAL CHARACTERISTICS (T_a=25° C unless specified otherwise)

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
DC Current Gain	$*h_{FE}$	$I_C=1.5A, V_{CE}=2V$				
		2N5193/2N5194	25		100	
		2N5195	20		80	
		$I_C=4A, V_{CE}=2V$				
		2N5193	10		80	
		2N5194	10			
		2N5195	7			
Transition frequency	f_T	$I_C=1A, V_{CE}=10V, f=1MHz$	2			MHz

*Pulsed Pulse Duration=300ms, Duty Cycle=1.5%

2N5193-95Rev020207E

TO-126 (SOT-32) Plastic Package



Pin Configuration

1. Emitter
2. Collector
3. Base

DIM	MIN	MAX
A	7.4	7.8
B	10.5	10.8
C	2.4	2.7
D	0.7	0.9
E	2.25 TYP.	
F	0.49	0.75
G	4.5 TYP.	
L	15.7 TYP.	
M	1.27 TYP.	
N	3.75 TYP.	
P	3.0	3.2
S	2.5 TYP.	

All dimensions in mm.

Packing Detail

PACKAGE	STANDARD PACK		INNER CARTON BOX		OUTER CARTON BOX		
	Details	Net Weight /Qty	Size	Qty	Size	Qty	Gr Wt
TO-126 Bulk	500 pcs/polybag	340 gm/500 pcs	3" x 7.5" x 7.5"	2K	17" x 15" x 13.5"	32K	31 kgs
TO-126 Tube	50 pcs/tube	73 gm/50 pcs	3" x 3.7" x 21.5"	1K	19" x 19" x 19"	10K	15 kgs

Component Disposal Instructions

1. CDIL Semiconductor Devices are RoHS compliant, customers are requested to please dispose as per prevailing Environmental Legislation of their Country.
2. In Europe, please dispose as per EU Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE).

Disclaimer

The product information and the selection guides facilitate selection of the CDIL's Semiconductor Device(s) best suited for application in your product(s) as per your requirement. It is recommended that you completely review our Data Sheet(s) so as to confirm that the Device(s) meet functionality parameters for your application. The information furnished on the CDIL Web Site/CD is believed to be accurate and reliable. CDIL however, does not assume responsibility for inaccuracies or incomplete information. Furthermore, CDIL does not assume liability whatsoever, arising out of the application or use of any CDIL product; neither does it convey any license under its patent rights nor rights of others. These products are not designed for use in life saving/support appliances or systems. CDIL customers selling these products (either as individual Semiconductor Devices or incorporated in their end products), in any life saving/support appliances or systems or applications do so at their own risk and CDIL will not be responsible for any damages resulting from such sale(s).

CDIL strives for continuous improvement and reserves the right to change the specifications of its products without prior notice.



CDIL is a registered Trademark of
Continental Device India Limited

C-120 Naraina Industrial Area, New Delhi 110 028, India.
Telephone + 91-11-2579 6150, 4141 1112 Fax + 91-11-2579 5290, 4141119
email@cdil.com www.cdilsemi.com