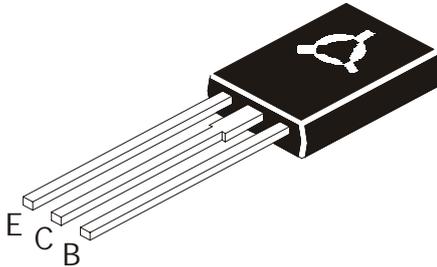


## NPN EPITAXIAL SILICON POWER TRANSISTORS

**2N5191**  
**2N5192**

**TO126**  
**Plastic Package**



### Use in Medium Power Linear and Switching Applications

#### ABSOLUTE MAXIMUM RATINGS

DESCRIPTION	SYMBOL	2N5191	2N5192	UNIT
Collector -Base Voltage	$V_{CBO}$	60	80	V
Collector -Emitter Voltage	$V_{CEO}$	60	80	V
Emitter Base Voltage	$V_{EBO}$	5		V
Collector Current	$I_C$	4		A
Collector Peak Current	$I_{CM}$	7		A
Base Current	$I_B$	1		A
Total Dissipation @ $T_C < 25^\circ\text{C}$	$P_{tot}$	40		W
Junction Temperature	$T_j$	150		$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	-65 to 150		$^\circ\text{C}$
<b>Thermal Resistance</b>				
Junction to Case	$R_{th(j-c)}$	3.12		$^\circ\text{C/W}$
Junction to Ambient	$R_{th(j-a)}$	100		$^\circ\text{C/W}$

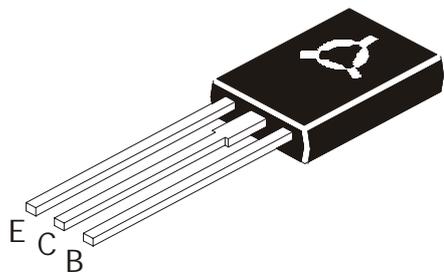
#### ELECTRICAL CHARACTERISTICS ( $T_a=25^\circ\text{C}$ unless specified otherwise)

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT	
Collector Emitter Sustaining Voltage	$V_{CEO(sus)}$	$I_C=100\text{mA}, I_B=0$	<b>2N5191</b>	60	-	-	V
			<b>2N5192</b>	80	-	-	V
Collector Cut off Current	$I_{CBO}$	$V_{CB}=\text{rated } V_{CBO}, I_E=0$	-	-	0.1	mA	
	$I_{CEX}$	$V_{CE}=\text{rated } V_{CEO}, V_{BE}=1.5\text{V}$	-	-	0.1	mA	
		$V_{CE}=\text{rated } V_{CEO}, V_{BE}=1.5\text{V}, T_C=125^\circ\text{C}$	-	-	2	mA	
Emitter Cut off Current	$I_{CEO}$	$V_{CE}=\text{rated } V_{CEO}, I_B=0$	-	-	1	mA	
	$I_{EBO}$	$V_{EB}=5\text{V}, I_C=0$	-	-	1	mA	
Collector Emitter Saturation Voltage	$V_{CE(sat)}$ *	$I_C=1.5\text{A}, I_B=0.15\text{A}$	-	-	0.6	V	
		$I_C=4\text{A}, I_B=1\text{A}$	-	-	1.4	V	
Base Emitter Voltage	$V_{BE}$ *	$I_C=1.5\text{A}, V_{CE}=2\text{V}$	-	-	1.2	V	

# NPN EPITAXIAL SILICON POWER TRANSISTORS

2N5191  
2N5192

TO126  
Plastic Package



## ELECTRICAL CHARACTERISTICS (Ta=25°C unless specified otherwise)

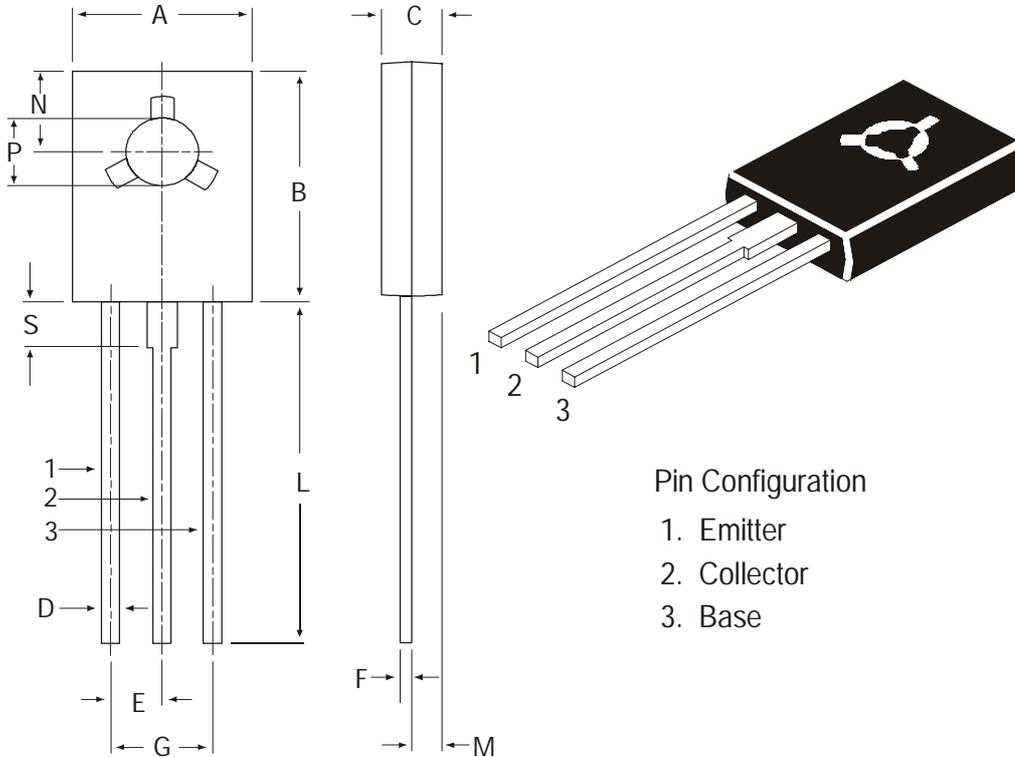
DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT	
DC Current Gain	$h_{FE}$	$I_C=1.5A, V_{CE}=2V$	2N5191	25	-	100	
			2N5192	20	-	80	
		$I_C=4A, V_{CE}=2V$	2N5191	10	-	-	
			2N5192	7	-	-	
Transition frequency	$f_T$	$I_C=1A, V_{CE}=10V$	2	-	-	MHz	

\*Pulsed Pulse Duration=300μs, Duty Cycle=1.5%

2N5191  
2N5192

TO126  
Plastic Package

TO-126 (SOT-32) Plastic Package



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

### **Disclaimer**

The product information and the selection guides facilitate selection of the CDIL's Discrete 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 in the Data Sheet and 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 Discrete 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 + 91-11-579 6150 Fax + 91-11-579 9569, 579 5290

e-mail sales@cdil.com www.cdil.com