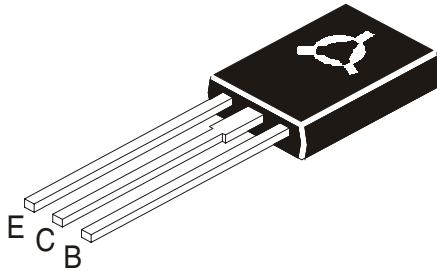


**NPN PLASTIC POWER TRANSISTORS**

**BF457, 458, 459**



**TO126  
Plastic Package**

**Video Output Stages of TV Sets , for AF Output Stages with a High Operating Voltage and as Driver Transistors in Horizontal Deflection Circuit Applications.**

**ABSOLUTE MAXIMUM RATINGS (Ta=25°C unless specified otherwise)**

DESCRIPTION	SYMBOL	457	458	459	UNITS
Collector Base Voltage(open emitter)	$V_{CBO}$	>160	>250	>300	V
Collector Emitter Voltage (open base)	$V_{CEO}$	>160	>250	>300	V
Emitter Base Voltage(open collector)	$V_{EBO}$		>5.0		V
Collector Current	$I_C$		<100		mA
Collector current (Peak Value)	$I_{CM}$		<300		mA
Base Current	$I_B$		<50		mA
Total Power Dissipation@ Tc=45 °C	$P_{tot}$		<10		W
Total Power Dissipation@ Ta=25 °C	$P_{tot}$		<1.2		W
Junction Temperature	$T_j$		<150		°C
Storage Temperature	$T_{stg}$		-65 to +150		°C

**THERMAL RESISTANCE**

From Junction to case	$R_{th(j-c)}$		10		K/W
From Junction to ambient	$R_{th(j-a)}$		104		K/W

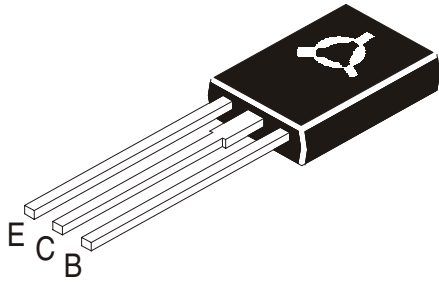
**ELECTRICAL CHARACTERISTICS (Ta=25°C Unless Otherwise Specified)**

DESCRIPTION	SYMBOL	457	458	459	UNITS
Collector-Cut off Current	$I_{CBO}$ $I_E = 0, V_{CB} = 100V$	<50			nA
	$I_{CBO}$ $I_E = 0, V_{CB} = 200V$		<50		nA
	$I_{CBO}$ $I_E = 0, V_{CB} = 250V$			<50	nA
Emitter cut off Current	$I_{EBO}$ $V_{EB} = 3V, I_C = 0$		<50		nA
Breakdown Voltages	$V_{CEO}$ $I_C = 10mA, I_B = 0$	>160	>250	>300	V
	$V_{CBO}$ $I_C = 100\mu A, I_E = 0$	>160	>250	>300	V
	$V_{EBO}$ $I_C = 0, I_E = 1mA$		>5.0		V
Saturation Voltage	$V_{CE(sat)}$ $I_C = 30A, I_B = 6mA$		<1.0		V

# NPN PLASTIC POWER TRANSISTORS

BF457, 458, 459

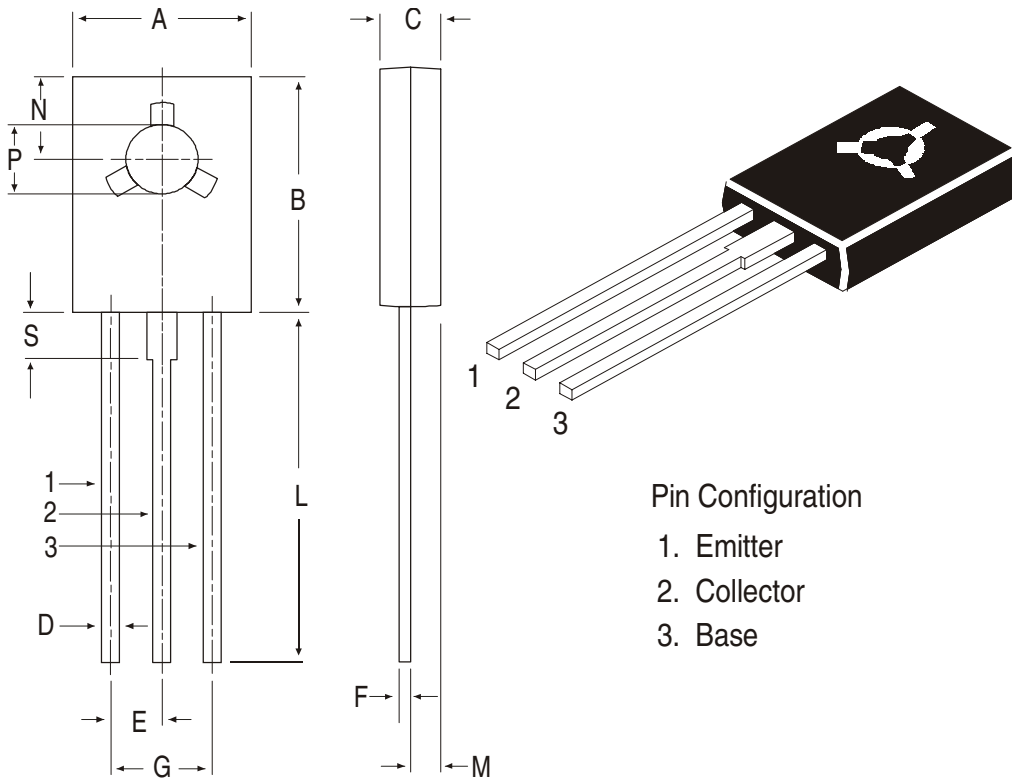
TO126  
Plastic Package



DESCRIPTION	SYMBOL		457	458	459	UNITS
Saturation Voltage	$V_{CE(sat)}$	$I_C=30A, I_B=6mA$		<1.0		V
DC Current Gain	$h_{FE}$	$I_C=30mA, V_{CE}=10V$		>25		
Output capacitance at f=1MHz	$C_O$	$I_E=0, V_{CB}=30V$	Typ	5.5		pF
Transition Frequency f =20 MHz	$f_T$	$I_C=15mA, V_{CE}=10V$	Typ	90		MHz
Feedback Capacitance f=1MHz	$C_{re}$	$I_C=1mA, V_{CE}=30V$	Typ	4.2		pF

**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 diminsions 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