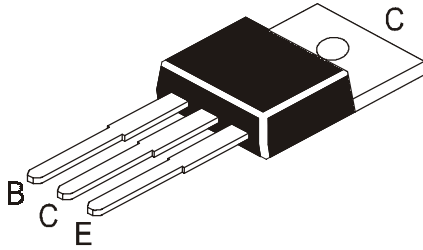


**PLASTIC POWER TRANSISTORS**

**BD 905, 907, 909, 911 NPN**  
**BD906, 908, 910, 912 PNP**



**TO-220**  
**Plastic Package**

**Power Linear and Switching Applications**

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

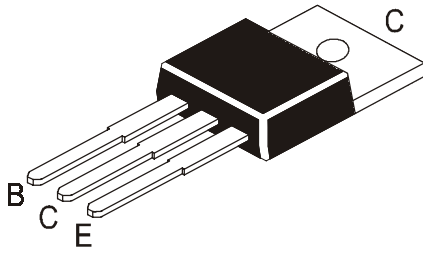
DESCRIPTION	SYMBOL	905	907	909	911	UNIT
		906	908	910	912	
Collector -Emitter Voltage	$V_{CEO}$	45	60	80	100	V
Collector -Base Voltage	$V_{CBO}$	45	60	80	100	V
Emitter -Base Voltage	$V_{EBO}$			5.0		V
Emitter and Collector Current	$I_E, I_C$			15		A
Base Current	$I_B$			5.0		A
Total Power Dissipation up to Tc=25°C	$P_{tot}$			90		W
Junction Temperature	$T_j$			150		°C
Temperature Range	$T_{stg}$			-65 to +150		°C

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

DESCRIPTION	SYMBOL	905	907	909	911	UNIT	
		906	908	910	912		
Breakdown (sus) Voltage	$V_{CEO(sus)}$ * $I_C=50mA, I_B=0$	45	60	80	100	V	
Collector-Cut off Current	$I_{CEO}$ $V_{CE}=30V, I_B=0$ $V_{CE}=40V, I_B=0$ $V_{CE}=50V, I_B=0$	1.0	1.0			mA	
					1.0		mA
						1.0	mA
	$I_{CBO}$ $I_E=0, V_{CB}=\text{Rated}$ $V_{CBO}, I_E=0, V_{CB}=\text{Rated}$ $V_{CBO}, T_c=150^\circ\text{C}$			0.5		mA	
			5		mA		
Emitter-Cut off Current	$I_{EBO}$ $V_{EB}=5V, I_C=0$			1.0		mA	
Saturation Voltages	$V_{CE(sat)}$ * $I_C=5A, I_B=0.5A$ $I_C=10A, I_B=2.5A$			1.0		V	
				3.0		V	
	$V_{BE(sat)}$ * $I_C=10A, I_B=2.5A$			2.5		V	

# PLASTIC POWER TRANSISTORS

BD 905, 907, 909, 911 NPN  
BD906, 908, 910, 912 PNP



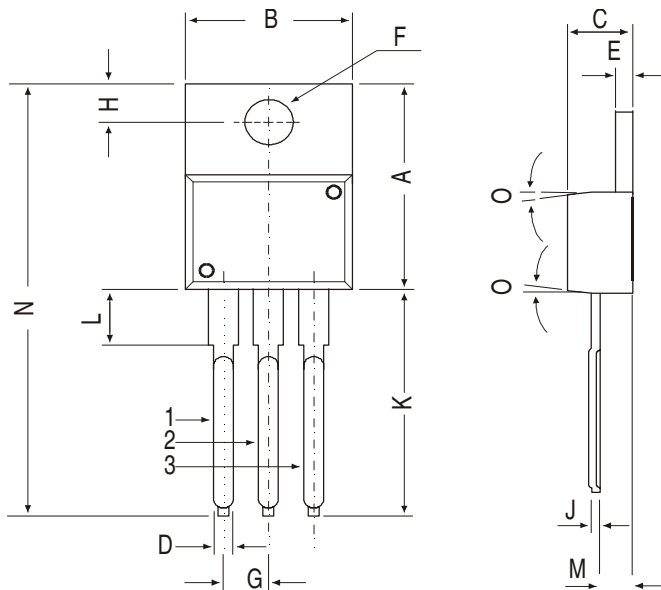
TO-220  
Plastic Package

DESCRIPTION	SYMBOL	905	907	909	911	UNIT
		906	908	910	912	
Base Emitter on Voltage	$V_{BE(on)}^*$	$I_C=5A, V_{CE}=4V,$		1.5		V
DC Current Gain	$h_{FE}^*$	$I_C=0.5A, V_{CE}=4V$		40-250		
		$I_C=5A, V_{CE}=4V$		15-150		
		$I_C=10A, V_{CE}=4V$		>5		
Transition Frequency	$f_T$	$V_{CE}=4V, I_C=0.5A,$		>3.0		MHZ

\*Pulse Test:- Pulse Width<300 $\mu$ s, Duty Cycle=1.5%

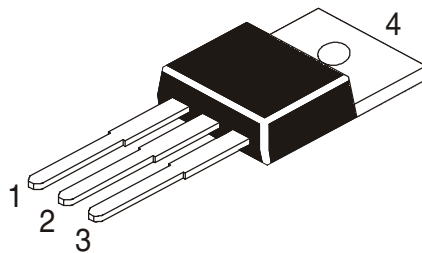
**TO-220  
Plastic Package**

**TO-220 Plastic Package**



DIM	MIN	MAX
A	14.42	16.51
B	9.63	10.67
C	3.56	4.83
D	—	0.90
E	1.15	1.50
F	3.53	4.10
G	2.29	2.79
H	2.54	3.43
J	0.36	0.61
K	12.70	14.73
L	2.80	6.35
M	2.00	2.92
N	—	31.24
O	7 DEG	

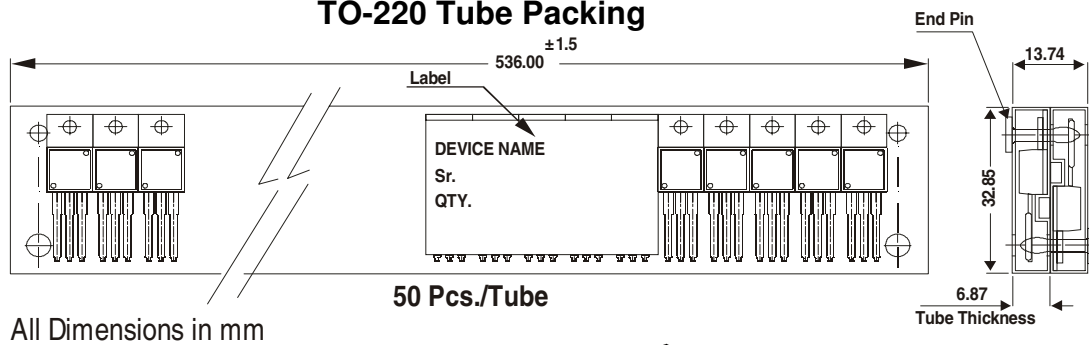
All dimensions in mm.



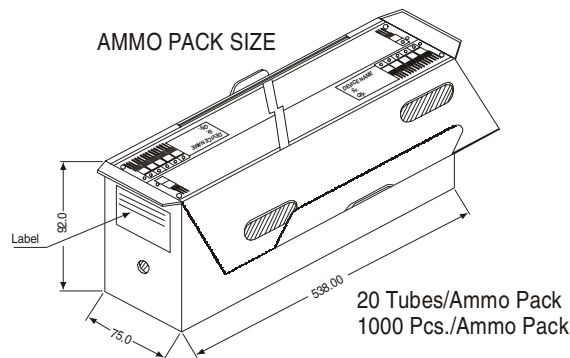
**Pin Configuration**

1. Base
2. Collector
3. Emitter
4. Collector

**TO-220 Tube Packing**



**AMMO PACK SIZE**



**Packing Detail**

PACKAGE	STANDARD PACK		INNER CARTON BOX		OUTER CARTON BOX		
	Details	Net Weight/Qty	Size	Qty	Size	Qty	Gr Wt
TO-220	200 pcs/polybag	396 gm/200 pcs	3" x 7.5" x 7.5"	1K	17" x 15" x 13.5"	16K	36 kgs
	50 pcs/tube	135 gm/50 pcs	3.5" x 3.7" x 21.5"	1K	19" x 19" x 19"	10K	28 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).

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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).

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