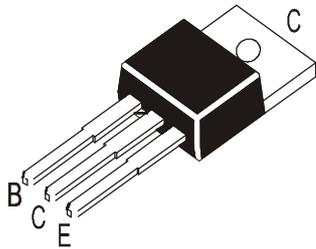


**PLASTIC POWER TRANSISTORS**

**BD243, A, B, C NPN**  
**BD244, A, B, C PNP**



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

**Complementary Silicon Transistors intended for a wide variety of Switching and Amplifier Applications, Series and Shunt Regulators, Driver and Output stages of Hi-Fi Amplifiers**

**ABSOLUTE MAXIMUM RATINGS (T<sub>a</sub>=25°C)**

DESCRIPTION	SYMBOL	BD243	BD243A	BD243B	BD243C	UNIT
		BD244	BD244A	BD244B	BD244C	
Collector Emitter Voltage	V <sub>CEO</sub>	45	60	80	100	V
Collector Base Voltage	V <sub>CBO</sub>	45	60	80	100	V
Emitter Base Voltage	V <sub>EBO</sub>	5.0				V
Collector Current Continuous	I <sub>C</sub>	6.0				A
Collector Current Peak	I <sub>CM</sub>	10				A
Base Current	I <sub>B</sub>	2.0				A
Power Dissipation upto T <sub>c</sub> =25°C Derate above 25°C	P <sub>D</sub>	65				W
		0.52				W/°C
Power Dissipation upto T <sub>a</sub> =25°C Derate above 25°C	P <sub>D</sub>	2.0				W
		16				mW/°C
Storage Temperature	T <sub>stg</sub>	- 65 to +150				°C
Junction Temperature	T <sub>j</sub>	150				°C

**THERMAL RESISTANCE**

Junction to Case	R <sub>th (j-c)</sub>	1.92	°C/W
Junction to Ambient in free air	R <sub>th (j-a)</sub>	62.5	°C/W

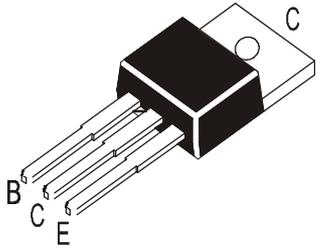
**ELECTRICAL CHARACTERISTICS (T<sub>c</sub>=25°C unless specified otherwise )**

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNIT
Collector Emitter (sus) Voltage	*V <sub>CEO(sus)</sub>	I <sub>C</sub> =30mA, I <sub>B</sub> =0			
		<b>BD243/BD244</b>	45		V
		<b>BD243A/BD244A</b>	60		V
		<b>BD243B/BD244B</b>	80		V
		<b>BD243C/BD244C</b>	100		V
Collector Cut Off Current	I <sub>CEO</sub>	V <sub>CE</sub> =30V, I <sub>B</sub> =0			
		<b>BD243, A / BD244, A</b>		0.7	mA
		V <sub>CE</sub> =60V, I <sub>B</sub> =0			
		<b>BD243B, C/ BD244B, C</b>		0.7	mA

# PLASTIC POWER TRANSISTORS

BD243, A, B, C NPN  
BD244, A, B, C PNP

TO-220  
Plastic Package



## ELECTRICAL CHARACTERISTICS (T<sub>c</sub>=25°C unless specified otherwise )

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNIT
Collector Cut Off Current	I <sub>CES</sub>	V <sub>CE</sub> =V <sub>CEO</sub> (max), V <sub>BE</sub> =0		0.4	mA
Emitter Cut Off Current	I <sub>EBO</sub>	V <sub>EB</sub> =5V, I <sub>C</sub> =0		1.0	mA
DC Current Gain	*h <sub>FE</sub>	I <sub>C</sub> =0.3A, V <sub>CE</sub> =4V I <sub>C</sub> =3A, V <sub>CE</sub> =4V	30 15		
Collector Emitter Saturation Voltage	*V <sub>CE(sat)</sub>	I <sub>C</sub> =6A, I <sub>B</sub> =1A		1.5	V
Base Emitter on Voltage	*V <sub>BE(on)</sub>	I <sub>C</sub> =6A, V <sub>CE</sub> =4V		2.0	V

\*Pulse Test : Pulse width ≤300ms, Duty Cycle ≤2%

## DYNAMIC CHARACTERISTIC

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNIT
Small Signal Current Gain	h <sub>fe</sub>	I <sub>C</sub> =0.5A, V <sub>CE</sub> =10V, f=1KHZ	20		
Transition Frequency	**f <sub>T</sub>	I <sub>C</sub> =0.5A, V <sub>CE</sub> =10V, f=1MHz	3		MHz

## SWITCHING CHARACTERISTICS

DESCRIPTION	SYMBOL	TEST CONDITION	TYP	UNIT
Turn On Time	t <sub>on</sub>	V <sub>CC</sub> =30V, I <sub>C</sub> =6A, I <sub>B1</sub> =I <sub>B2</sub> =0.6A	0.3	μs
Turn Off Time	t <sub>off</sub>		0.6	μs

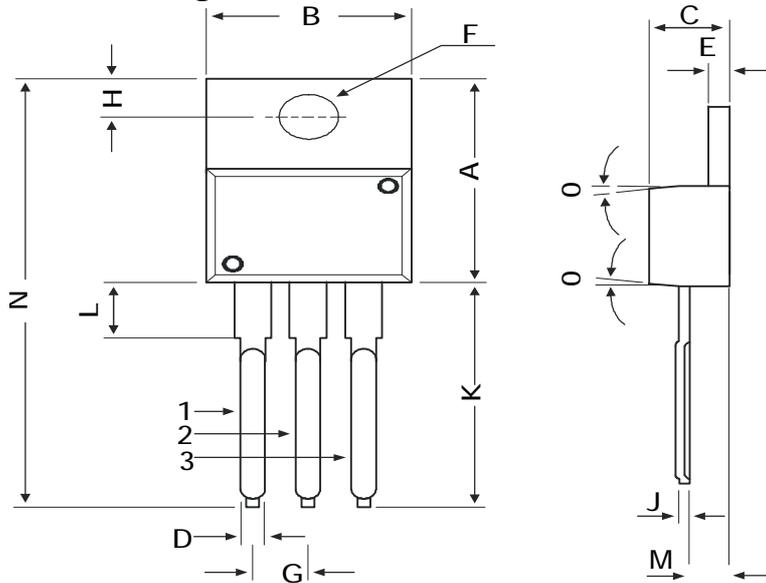
\*\*f<sub>T</sub>=/h<sub>fe</sub>/\* f<sub>test</sub>

BD243\_244Rev\_1 301202E

BD243, A, B, C NPN  
BD244, A, B, C PNP

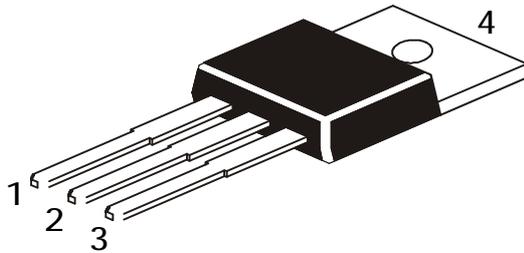
**TO-220  
Plastic Package**

**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	1.40
F	3.75	3.88
G	2.29	2.79
H	2.54	3.43
J	—	0.56
K	12.70	14.73
L	2.80	4.07
M	2.03	2.92
N	—	31.24
O	7 DEG	

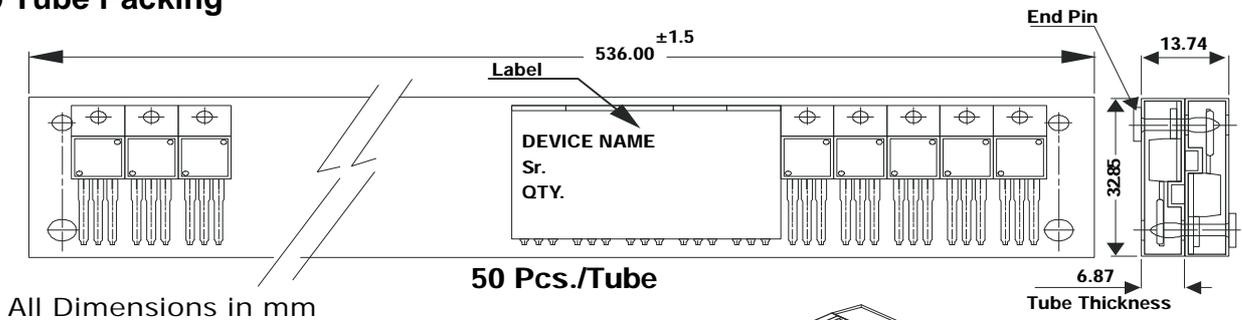
All dimensions in mm.



**Pin Configuration**

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

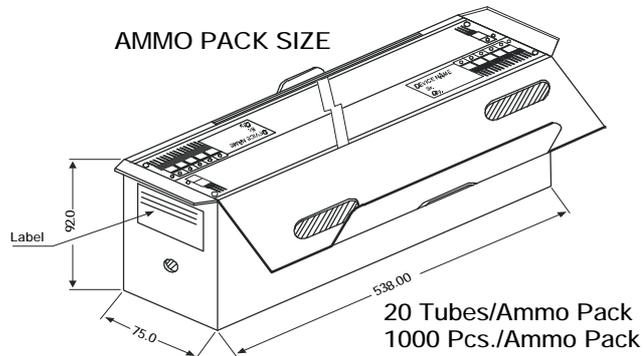
**TO-220 Tube Packing**



All Dimensions in mm

50 Pcs./Tube

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'	1.0K	17' x 15' x 13.5'	16.0K	36 kgs
	50 pcs/tube	120 gm/50 pcs	3.5' x 3.7' x 21.5'	1.0K	19' x 19' x 19'	10.0K	29 kgs

### **Disclaimer**

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