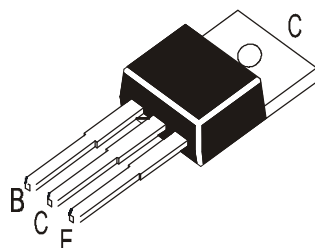


PLASTIC POWER TRANSISTORS

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 ($T_a=25^\circ\text{C}$)

DESCRIPTION	SYMBOL	BD243	BD243A	BD243B	BD243C	UNIT
		BD244	BD244A	BD244B	BD244C	
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
Collector Current Continuous	I_C	6.0				A
Collector Current Peak	I_{CM}	10				A
Base Current	I_B	2.0				A
Power Dissipation upto $T_c=25^\circ\text{C}$ Derate above 25°C	P_D	65 0.52				W W/°C
Power Dissipation upto $T_a=25^\circ\text{C}$ Derate above 25°C	P_D	2.0 16				W mW/°C
Storage Temperature	T_{stg}	- 65 to +150				°C
Junction Temperature	T_j	150				°C

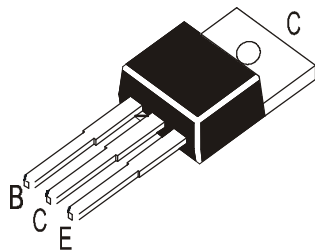
THERMAL RESISTANCE

Junction to Case	$R_{th(j-c)}$	1.92	°C/W
Junction to Ambient in free air	$R_{th(j-a)}$	62.5	°C/W

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

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNIT
Collector Emitter (sus) Voltage	$*V_{CEO(sus)}$	$I_C=30\text{mA}, I_B=0$ BD243/BD244	45		V
		BD243A/BD244A	60		V
		BD243B/BD244B	80		V
		BD243C/BD244C	100		V
Collector Cut Off Current	I_{CEO}	$V_{CE}=30\text{V}, I_B=0$ BD243, A / BD244, A		0.7	mA
		$V_{CE}=60\text{V}, I_B=0$ BD243B, C/ BD244B, C		0.7	mA

PLASTIC POWER TRANSISTORS



BD243, A, B, C NPN
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ELECTRICAL CHARACTERISTICS ($T_c=25^\circ\text{C}$ unless specified otherwise)

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNIT
Collector Cut Off Current	I_{CES}	$V_{CE}=V_{CEO}(\text{max}), V_{BE}=0$		0.4	mA
Emitter Cut Off Current	I_{EBO}	$V_{EB}=5\text{V}, I_C=0$		1.0	mA
DC Current Gain	h_{FE}	$I_C=0.3\text{A}, V_{CE}=4\text{V}$ $I_C=3\text{A}, V_{CE}=4\text{V}$	30 15		
Collector Emitter Saturation Voltage	$*V_{CE(sat)}$	$I_C=6\text{A}, I_B=1\text{A}$		1.5	V
Base Emitter on Voltage	$*V_{BE(on)}$	$I_C=6\text{A}, V_{CE}=4\text{V}$		2.0	V

*Pulse Test : Pulse width $\leq 300\text{ms}$, Duty Cycle $\leq 2\%$

DYNAMIC CHARACTERISTIC

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNIT
Small Signal Current Gain	h_{fe}	$I_C=0.5\text{A}, V_{CE}=10\text{V}, f=1\text{KHz}$	20		
Transition Frequency	$**f_T$	$I_C=0.5\text{A}, V_{CE}=10\text{V}, f=1\text{MHz}$	3		MHz

SWITCHING CHARACTERISTICS

DESCRIPTION	SYMBOL	TEST CONDITION	TYP	UNIT
Turn On Time	t_{on}	$V_{CC}=30\text{V}, I_C=6\text{A}, I_{B1}=I_{B2}=0.6\text{A}$	0.3	μs
Turn Off Time	t_{off}		0.6	μs

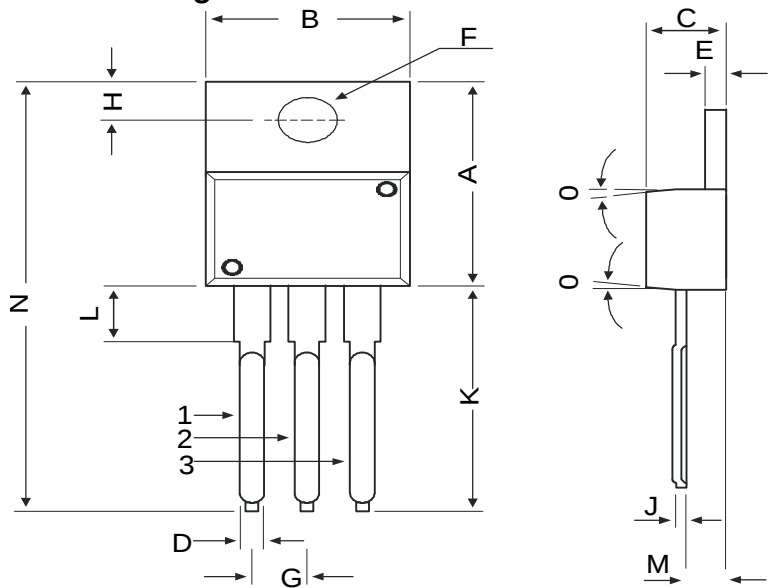
$**f_T = h_{fe} / * f_{\text{test}}$

BD243_244Rev_1 301202E

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

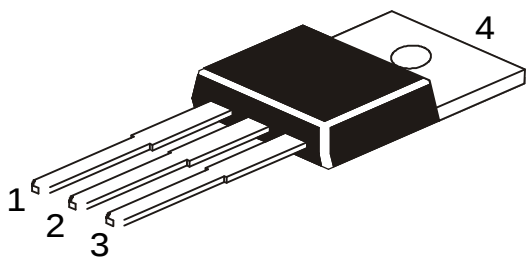
TO-220
Plastic Package

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	

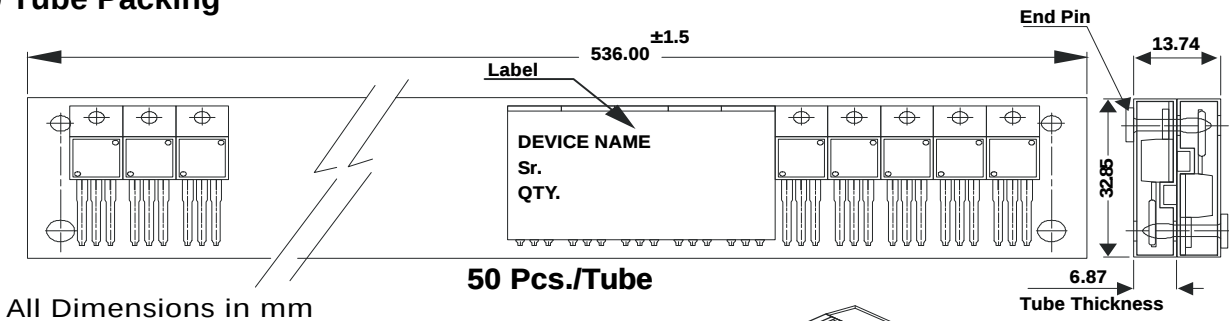
All diminsions in mm.



Pin Configuration

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

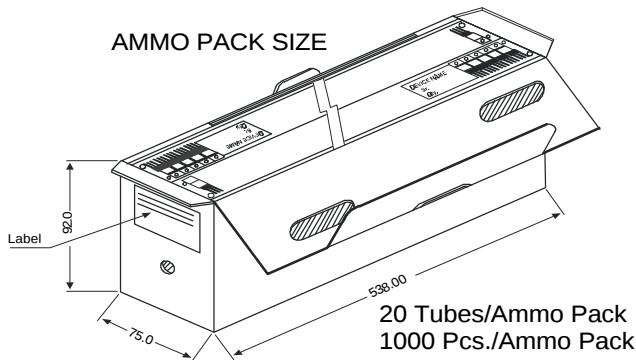
TO-220 Tube Packing



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

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