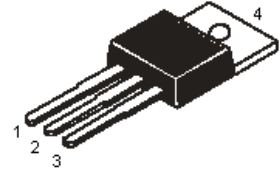
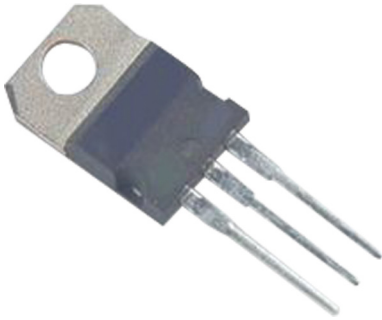


High Power Bipolar Transistor



Pin Configuration:

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

Feature:

- NPN plastic power transistors
- General purpose amplifier and switching applications

Absolute Maximum Ratings:

Characteristic	Symbol		BD243C	Unit
Collector-Base Voltage (Open Emitter)	V_{CBO}	Max.	100	V
Collector Emitter Voltage (Open Base)	V_{CEO}		6	A
Collector Current	I_C		65	W
Total Power Dissipation upto $T_C = 25^\circ\text{C}$	P_{tot}		150	$^\circ\text{C}$
Junction Temperature	T_j		1.5	V
Collector Current Saturation Voltage $I_C = 6\text{A}, I_B = 1\text{A}$	$V_{CE(Sat)}$	Min.	30	
DC Current Gain $I_C = 0.3\text{A}; V_{CE} = 4\text{V}$	h_{FE}			

Ratings (at $T_a = 25^\circ\text{C}$ unless otherwise specified) Limiting Values

Collector-Base Voltage (Open Emitter)	V_{CBO}	Max.	100	V
Collector Emitter Voltage (Open Base)	V_{CEO}		5	
Emitter-Base Voltage (Open Collector)	V_{EBO}		6	
Collector Current	I_C		10	A
Collector Current (Peak)			2	
Base Current	I_B		65	W
Total Power Dissipation upto $T_C = 25^\circ\text{C}$	P_{tot}		150	$^\circ\text{C}$
Junction Temperature	T_j		-65 to +150	
Storage Temperature	T_{stg}			

High Power Bipolar Transistor

Absolute Maximum Ratings:

Characteristic	Symbol		BD243C	Unit
Thermal Resistance				
From Junction to Case	$R_{th(j-c)}$	-	1.92	°C/W

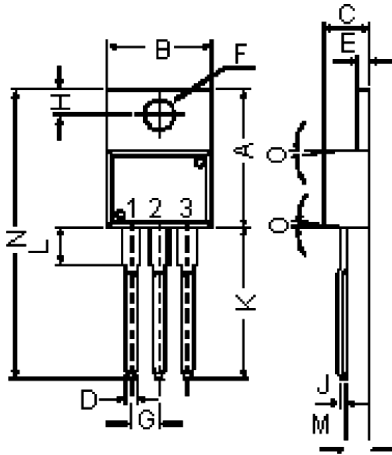
Characteristics $T_a = 25^\circ\text{C}$ unless otherwise specified

Collector Cut off Current $I_B = 0; V_{CE} = 60\text{V}$ $V_{BE} = 0; V_{CE} = V_{CEO}$	I_{CEO} I_{CES}	Max.	0.7 0.4	mA
Emitter Cut off Current $I_C = 0; V_{EB} = 5\text{V}$	I_{EBO}		1	
Breakdown Voltages $I_C = 30\text{mA}; I_B = 0$ $I_C = 1\text{mA}; I_E = 0$ $I_E = 1\text{mA}; I_C = 0$	$V_{CEO(Sus)}^*$ V_{CBO} V_{EBO}	Min.	100 100 5	V
Saturation Voltage $I_C = 6\text{A}; I_B = 1\text{A}$	$V_{CE(sat)}^*$	Max.	1.5	
Base Emitter On Voltage $I_C = 6\text{A}; V_{CE} = 4\text{V}$	$V_{BE(on)}^*$		2	
DC Current Gain $I_C = 0.3\text{A}; V_{CE} = 4\text{V}$ $I_C = 3\text{A}; V_{CE} = 4\text{V}$	h_{FE}^*	Min.	30 15	-
Small Signal Current Gain $I_C = 0.5\text{A}; V_{CE} = 10\text{V}; f = 1\text{kHz}$	h_{fe}		20	
Transition Frequency $I_C = 0.5\text{A}; V_{CE} = 10\text{V}; f = 1\text{MHz}$	$f_T(1)$		3	

* Pulse Test: Pulse Width $\leq 300\mu\text{s}$; Duty Cycle $\leq 2\%$.

(1) $f_T = |h_{fe}| \cdot f_{test}$

High Power Bipolar Transistor



Pin Configuration:

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

Dimensions	Min.	Max.
A	14.42	16.51
B	9.63	10.67
C	3.56	4.83
D	-	0.9
E	1.15	1.4
F	3.75	3.88
G	2.29	2.79
H	2.54	3.43
J	-	0.56
K	12.7	14.73
L	2.8	4.07
M	2.03	2.92
N	-	31.24
O	7°	

Dimensions : Millimetres

Part Number Table

Description	Part Number
Transistor, NPN, TO-220	BD243C

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