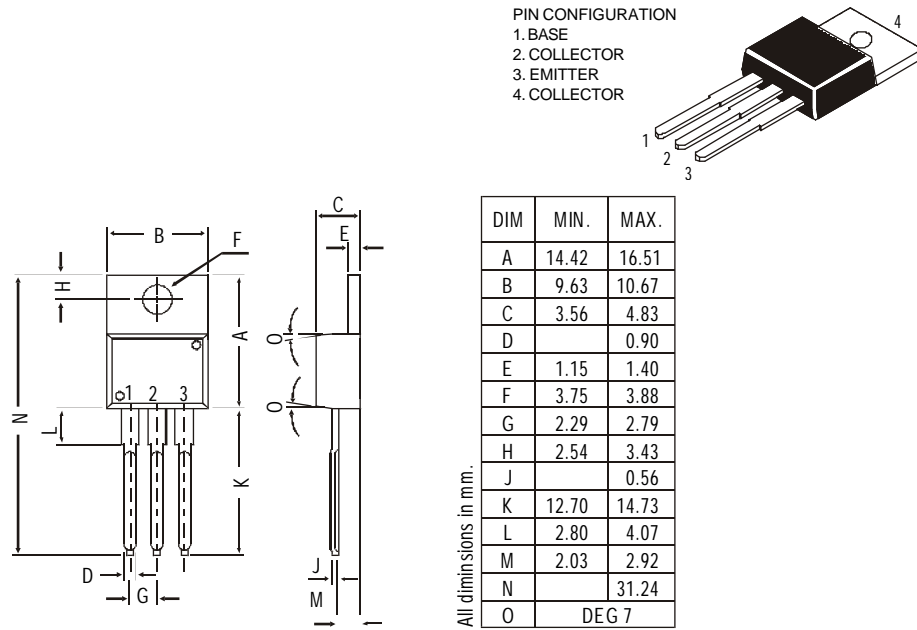


**TO-220 Plastic Package**

**BD243, BD243A, BD243B, BD243C  
BD244, BD244A, BD244B, BD244C**

*BD243, 243A, 243B, 243C NPN PLASTIC POWER TRANSISTORS  
BD244, 244A, 244B, 244C PNP PLASTIC POWER TRANSISTORS  
General Purpose Amplifier and Switching Applications*



**ABSOLUTE MAXIMUM RATINGS**

		<b>243</b>	<b>243A</b>	<b>243B</b>	<b>243C</b>	
		<b>244</b>	<b>244A</b>	<b>244B</b>	<b>244C</b>	
Collector-base voltage (open emitter)	$V_{CBO}$	max. 45	60	80	100	V
Collector-emitter voltage (open base)	$V_{CEO}$	max. 45	60	80	100	V
Collector current	$I_C$	max.		6.0		A
Total power dissipation up to $T_C = 25^\circ\text{C}$	$P_{tot}$	max.		65		W
Junction temperature	$T_j$	max.		150		$^\circ\text{C}$
Collector-emitter saturation voltage $I_C = 6\text{ A}; I_B = 1\text{ A}$	$V_{CEsat}$	max.		1.5		V
D.C. current gain $I_C = 0.3\text{ A}; V_{CE} = 4\text{ V}$	$h_{FE}$	min.		30		

**RATINGS** (at  $T_A=25^\circ\text{C}$  unless otherwise specified)

		<b>243</b>	<b>243A</b>	<b>243B</b>	<b>243C</b>	
		<b>244</b>	<b>244A</b>	<b>244B</b>	<b>244C</b>	
Collector-base voltage (open emitter)	$V_{CBO}$	max. 45	60	80	100	V
Collector-emitter voltage (open base)	$V_{CEO}$	max. 45	60	80	100	V
Emitter-base voltage (open collector)	$V_{EBO}$	max.		5.0		V

**BD243, BD243A, BD243B, BD243C  
BD244, BD244A, BD244B, BD244C**

Collector current	$I_C$	max.	6.0	A
Collector current (Peak)	$I_C$	max.	10	A
Base current	$I_B$	max.	2.0	A
Total power dissipation upto $T_C=25^\circ\text{C}$	$P_{tot}$	max.	65	W
Junction temperature	$T_j$	max.	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$		-65 to +150	$^\circ\text{C}$

**THERMAL RESISTANCE**

From junction to case	$R_{thj-c}$		1.92	$^\circ\text{C/W}$
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**CHARACTERISTICS**

$T_{amb} = 25^\circ\text{C}$  unless otherwise specified

			<b>243</b>	<b>243A</b>	<b>243B</b>	<b>243C</b>	
			<b>244</b>	<b>244A</b>	<b>244B</b>	<b>244C</b>	
Collector cutoff current							
$I_B = 0; V_{CE} = 30\text{ V}$	$I_{CEO}$	max.	0.7	0.7	-	-	mA
$I_B = 0; V_{CE} = 60\text{ V}$	$I_{CEO}$	max.	-	-	0.7	0.7	mA
$V_{BE} = 0; V_{CE} = V_{CEO}$	$I_{CES}$	max.		0.4			mA
Emitter cut-off current							
$I_C = 0; V_{EB} = 5\text{ V}$	$I_{EBO}$	max.		1.0			mA
Breakdown voltages							
$I_C = 30\text{ mA}; I_B = 0$	$V_{CEO(sus)}^*$	min.	45	60	80	100	V
$I_C = 1\text{ mA}; I_E = 0$	$V_{CBO}$	min.	45	60	80	100	V
$I_E = 1\text{ mA}; I_C = 0$	$V_{EBO}$	min.		5.0			V
Saturation voltage							
$I_C = 6\text{ A}; I_B = 1\text{ A}$	$V_{CEsat}^*$	max.		1.5			V
Base emitter on voltage							
$I_C = 6\text{ A}; V_{CE} = 4\text{ V}$	$V_{BE(on)}^*$	max.		2.0			V
D.C. current gain							
$I_C = 0.3\text{ A}; V_{CE} = 4\text{ V}$	$h_{FE}^*$	min.		30			
$I_C = 3\text{ A}; V_{CE} = 4\text{ V}$	$h_{FE}^*$	min.		15			
Small signal current gain							
$I_C = 0.5\text{ A}; V_{CE} = 10\text{ V}; f = 1\text{ KHz}$	$h_{fe}$	min.		20			
Transition frequency							
$I_C = 0.5\text{ A}; V_{CE} = 10\text{ V}; f = 1\text{ MHz}$	$f_T(1)$	min.		3			MHz

\* Pulse Test: Pulse width  $\leq 300\ \mu\text{s}$ ; duty cycle  $\leq 2\%$ .

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

## Notes

### Disclaimer

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