

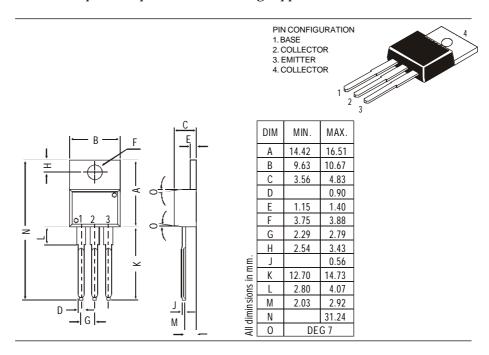




TO-220 Plastic Package

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										
		243	243A 243	B 243C						
		244	244A 244	B 244C						
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		\boldsymbol{A}					
Total power dissipation up to $T_C = 25^{\circ}C$	P_{tot}	max.	65		W					
Junction temperature	T_{j}	max.	150		${}^{\!$					
Collector-emitter saturation voltage	J									
$I_C = 6 A$; $I_B = 1 A$	V_{CEsat}	<i>max.</i> 1.5			V					
D.C. current gain										
$I_C = 0.3 \ A; \ V_{CE} = 4 \ V$	$h_{\!F\!E}$	min.	min. 30							
RATINGS (at T_A =25°C unless otherwise specified)										
Limiting values	_	243	243A 243	B 243C						
		244	244A 244	B 244C						
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 Collector current (Peak) Base current Total power dissipation upto $T_C=25^{\circ}C$	I_C I_C I_B P_{tot}	max. max. max. max.		6.0 10 2.0 65			$egin{array}{c} A & & & & & & & & & & & & & & & & & & $
Junction temperature Storage temperature	T_{Stg}	max.		150 -65 to +150			\mathcal{C}
THERMAL RESISTANCE	C						
From junction to case	R_{thj-c}			1.92			${}^{\!$
CHARACTERISTICS $T_{amb} = 25^{\circ}C$ unless otherwise specified				243A 244A			
Collector cutoff current			~	~	~	~	
$I_B = 0; \ V_{CE} = 30 \ V$	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							
$I_C = 0$; $V_{EB} = 5 V$	I_{EBO}	max.		1.	.0		mA
Breakdown voltages							
$I_C = 30 \text{ mA}; I_B = 0$	$V_{CEO(sus)}^*$	min.	45	60	<i>80</i>	100	V
$I_C = 1 \text{ mA}; I_E = 0$	V_{CBO}	min.	45	60	<i>80</i>	100	V
$I_E = 1 \text{ mA}; I_C = 0$	V_{EBO}	min.		5.	.0		V
Saturation voltage							
$I_C = 6 A$; $I_B = 1 A$	V_{CEsat}^*	max.		1.	.5		V
Base emitter on voltage							
$I_C = 6 A; V_{CE} = 4 V$	$V_{BE(on)}^*$	max.		2.	.0		V
D.C. current gain							
$I_C = 0.3 A; V_{CE} = 4 V$	$h_{\!F\!E}^*$	min.		30			
$I_C = 3 A$; $V_{CE} = 4 V$	$h_{\!F\!E}^*$	min.		15			
Small signal current gain	,						
$I_{C} = 0.5A; V_{CE} = 10V; f = 1 \text{ KHz}$	h_{fe}	min.		20			
Transition frequency $I_C = 0.5 A$; $V_{CE} = 10 V$; $f = 1 MHz$	f _T (1)	min.		3		MHz	
	- ' '						

^{*} Pulse Test: Pulse width \leq 300 µs; duty cycle \leq 2%. (1) $f_T = /h_{\rm fe}/\bullet f_{\rm test}$

Notes

Disclaimer

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 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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C-120 Naraina Industrial Area, New Delhi 110 028, India.

Telephone + 91-11-579 6150 Fax + 91-11-579 9569, 579 5290
e-mail sales@cdil.com www.cdil.com