

BD244/A/B/C

Medium Power Linear and Switching Applications

- Complement to BD243, BD243A, BD243B and BD243C respectively



TO-220
1.Base 2.Collector 3.Emitter

PNP Epitaxial Silicon Transistor

Absolute Maximum Ratings $T_C=25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage		
	: BD244	- 45	V
	: BD244A	- 60	V
	: BD244B	- 80	V
	: BD244C	- 100	V
V_{CEO}	Collector-Emitter Voltage		
	: BD244	- 45	V
	: BD244A	- 60	V
	: BD244B	- 80	V
	: BD244C	- 100	V
V_{EBO}	Emitter-Base Voltage	- 5	V
I_C	Collector Current (DC)	- 6	A
I_{CP}	*Collector Current (Pulse)	- 10	A
I_B	Base Current	- 2	A
P_C	Collector Dissipation ($T_C=25^\circ\text{C}$)	65	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{STG}	Storage Temperature	- 65 ~ 150	$^\circ\text{C}$

Electrical Characteristics $T_C=25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
$V_{CEO(sus)}$	* Collector-Emitter Sustaining Voltage					
	: BD244	$I_C = - 30\text{mA}, I_B = 0$	- 45			V
	: BD244A		- 60			V
	: BD244B		- 80			V
	: BD244C		- 100			V
I_{CEO}	Collector Cut-off Current	$V_{CE} = - 30\text{V}, I_B = 0$			- 0.7	mA
	: BD244/244A : BD244B/244C	$V_{CE} = - 60\text{V}, I_B = 0$			- 0.7	mA
I_{CES}	Collector Cut-off Current				- 0.4	mA
	: BD244	$V_{CE} = - 45\text{V}, V_{BE} = 0$			- 0.4	mA
	: BD244A	$V_{CE} = - 60\text{V}, V_{BE} = 0$			- 0.4	mA
	: BD244B	$V_{CE} = - 80\text{V}, V_{BE} = 0$			- 0.4	mA
	: BD244C	$V_{CE} = - 100\text{V}, V_{BE} = 0$			- 0.4	mA
I_{EBO}	Emitter Cut-off Current	$V_{EB} = - 5\text{V}, I_C = 0$			- 1	mA
h_{FE}	* DC Current Gain	$V_{CE} = - 4\text{V}, I_C = - 0.3\text{A}$	30			
		$V_{CE} = - 4\text{V}, I_C = - 3\text{A}$	15			
$V_{CE(sat)}$	* Collector-Emitter Saturation Voltage	$I_C = - 6\text{A}, I_B = - 1\text{A}$			- 1.5	V
$V_{BE(on)}$	* Base-Emitter ON Voltage	$V_{CE} = - 4\text{V}, I_C = - 6\text{A}$			- 2	V

* Pulse Test: PW = 300 μs , duty Cycle = 2% Pulsed

Typical Characteristics

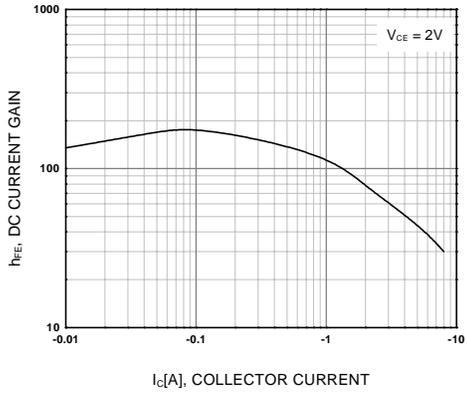


Figure 1. DC current Gain

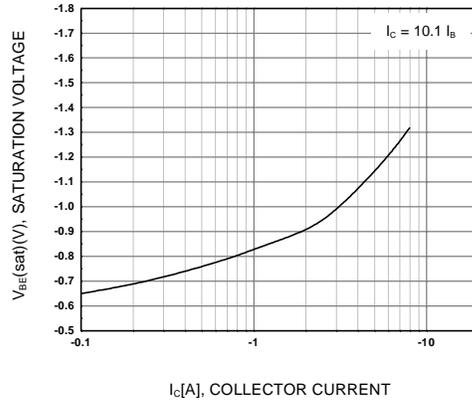


Figure 2. Base-Emitter Saturation Voltage

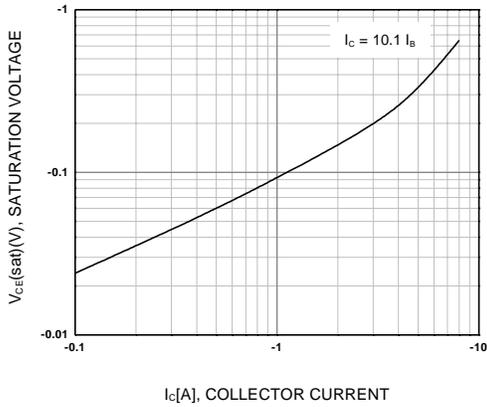


Figure 3. Collector-Emitter Saturation Voltage

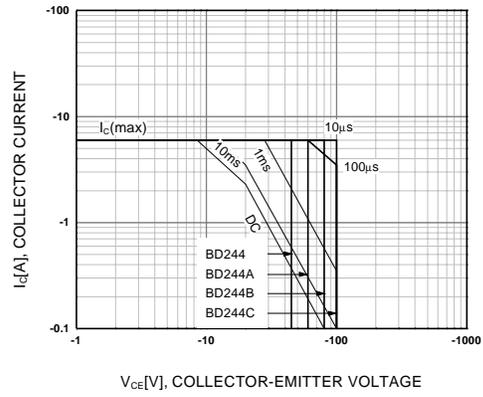


Figure 4. Safe Operating Area

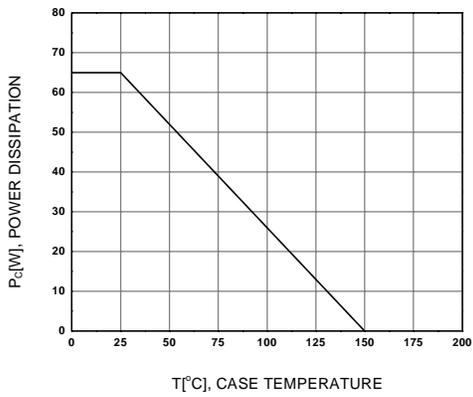
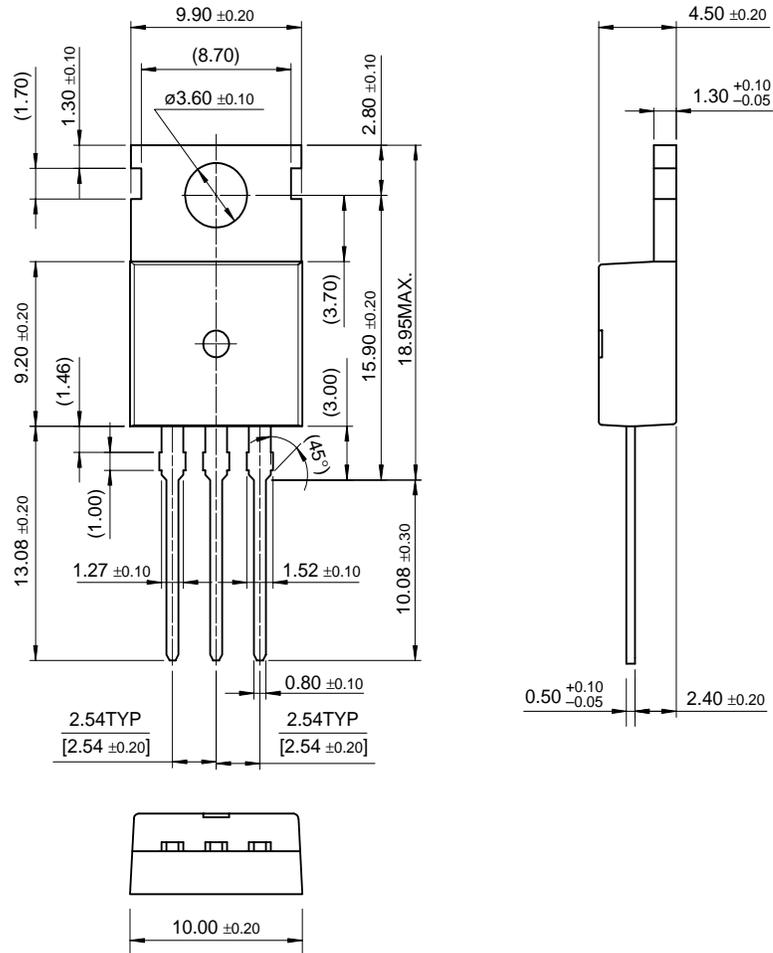


Figure 5. Power Derating

Package Dimensions

BD244/A/B/C

TO-220



Dimensions in Millimeters

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BD244A
PNP Epitaxial Silicon Transistor

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Product status/pricing/packaging

Product	Product status	Pricing*	Package type	Leads	Packing method
BD244A	Full Production	\$0.363	TO-220	3	BULK
BD244ATU	Full Production	\$0.363	TO-220	3	RAIL

* 1,000 piece Budgetary Pricing

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Models

Package & leads	Condition	Temperature range	Software version	Revision date
PSPICE				
TO-220-3	Electrical/Thermal	-25°C to 100°C	9	Nov 24, 2000

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Product status/pricing/packaging

Product	Product status	Pricing*	Package type	Leads	Packing method
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* 1,000 piece Budgetary Pricing

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Product status/pricing/packaging

Product	Product status	Pricing*	Package type	Leads	Packing method
BD244BTU	Full Production	\$0.363	TO-220	3	RAIL
BD244B	Full Production	\$0.363	TO-220	3	BULK

* 1,000 piece Budgetary Pricing

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