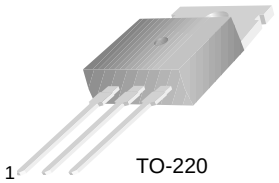
FAIRCHILD SEMICONDUCTOR™

BD243/A/B/C

Medium Power Linear and Switching Applications

- Complement to BD244, BD244A, BD244B and BD244C respectively



TO-220

1.Base 2.Collector 3.Emitter

NPN Epitaxial Silicon Transistor

Absolute Maximum Ratings T_C=25°C unless otherwise noted

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage		
	: BD243	45	V
	: BD243A	60	V
	: BD243B	80	V
	: BD243C	100	V
V_{CEO}	Collector-Emitter Voltage		
	: BD243	45	V
	: BD243A	60	V
	: BD243B	80	V
	: BD243C	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°C)	65	W
T_J	Junction Temperature	150	°C
T_{STG}	Storage Temperature	- 65 ~ 150	°C

Electrical Characteristics T_C=25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
V_{CEO}(sus)	* Collector-Emitter Sustaining Voltage					
	: BD243	I_C=30mA, I_B=0	45			V
	: BD243A		60			V
	: BD243B		80			V
	: BD243C		100			V
I_{CEO}	Collector Cut-off Current : BD243/243A	V_{CE} = 30V, I_B = 0			0.7	mA
	: BD243B/243C	V_{CE} = 60V, I_B = 0			0.7	mA
I_{CES}	Collector Cut-off Current : BD243	V_{CE} = 45V, V_{BE} = 0			0.4	mA
	: BD243A	V_{CE} = 60V, V_{BE} = 0			0.4	mA
	: BD243B	V_{CE} = 80V, V_{BE} = 0			0.4	mA
	: BD243C	V_{CE} = 100V, V_{BE} = 0			0.4	mA
I_{EBO}	Emitter Cut-off Current	V_{EB} = 5V, I_C = 0			1	mA
h_{FE}	*DC Current Gain	V_{CE} = 4V, I_C = 0.3A	30			
		V_{CE} = 4V, I_C = 3A	15			
V_{CE}(sat)	*Collector-Emitter Saturation Voltage	I_C = 6A, I_B = 1A			1.5	V
V_{BE}(on)	*Base-Emitter ON Voltage	V_{CE} = 4V, I_C = 6A			2	V

* Pulse Test :PW=300μs, duty Cycle<20% Pulsed

Typical Characteristics

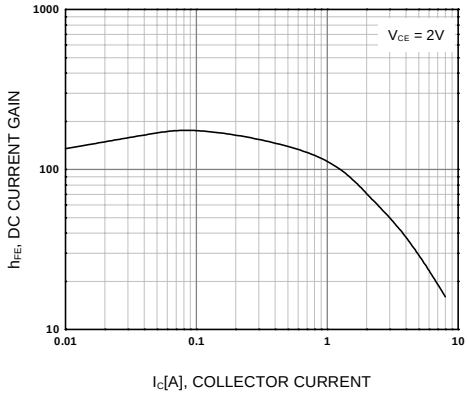


Figure 1. DC current Gain

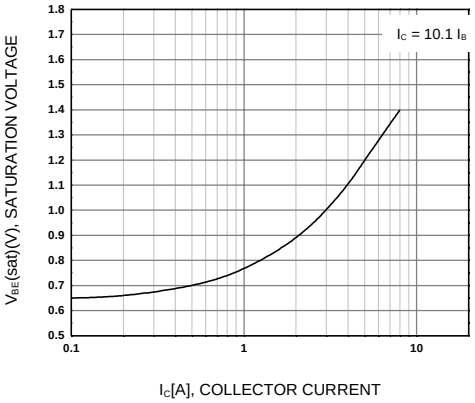


Figure 2. Base-Emitter Saturation Voltage

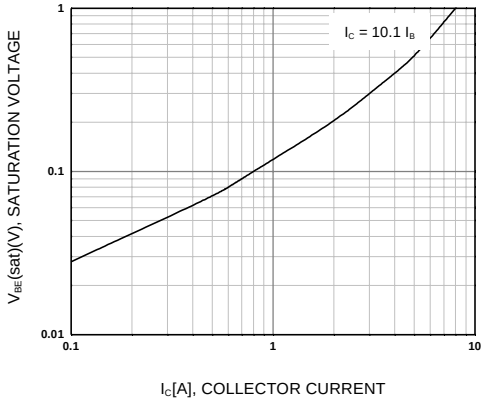


Figure 3. Collector-Emitter Saturation Voltage

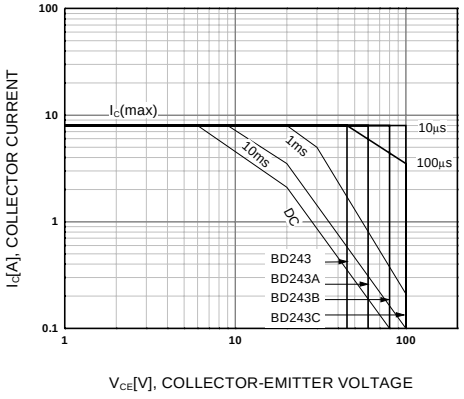


Figure 4. Safe Operating Area

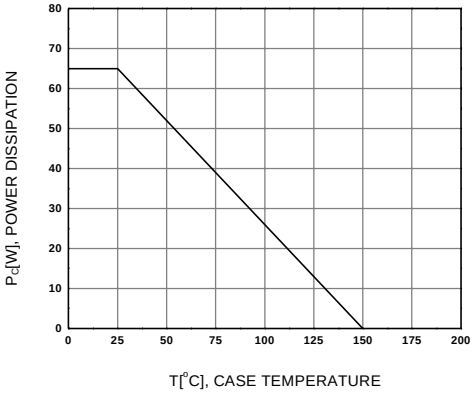
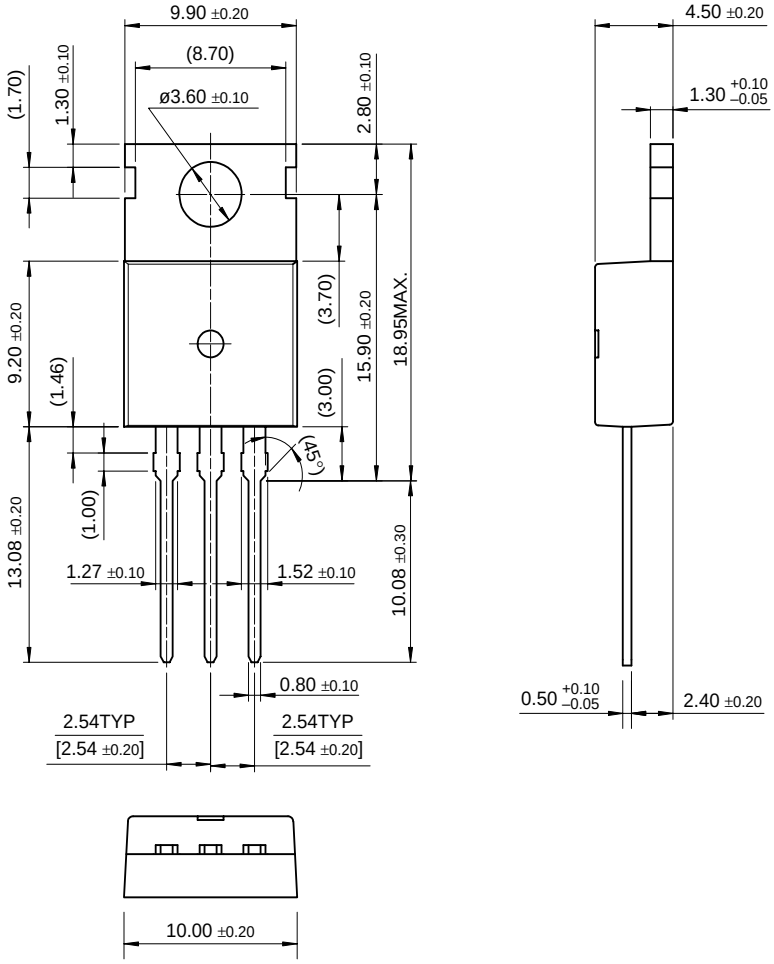


Figure 5. Power Derating

Package Demensions

TO-220



Dimensions in Millimeters

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