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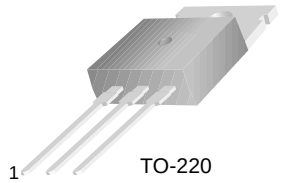
Please note: As part of the Fairchild Semiconductor integration, some of the Fairchild orderable part numbers will need to change in order to meet ON Semiconductor's system requirements. Since the ON Semiconductor product management systems do not have the ability to manage part nomenclature that utilizes an underscore (_), the underscore (_) in the Fairchild part numbers will be changed to a dash (-). This document may contain device numbers with an underscore (_). Please check the ON Semiconductor website to verify the updated device numbers. The most current and up-to-date ordering information can be found at www.onsemi.com. Please email any questions regarding the system integration to Fairchild_questions@onsemi.com.

FAIRCHILD SEMICONDUCTOR™

BD242/A/B/C

Medium Power Linear and Switching Applications

- Complement to BD241/A/B/C respectively



TO-220

1.Base 2.Collector 3.Emitter

PNP Epitaxial Silicon Transistor

Absolute Maximum Ratings T_C=25°C unless otherwise noted

Symbol	Parameter	Value	Units
V_{CEO}	Collector-Emitter Voltage		
	: BD242	- 45	V
	: BD242A	- 60	V
	: BD242B	- 80	V
	: BD242C	- 100	V
V_{CER}	Collector-Emitter Voltage		
	: BD242	- 55	V
	: BD242A	- 70	V
	: BD242B	- 90	V
	: BD242C	- 115	V
V_{EBO}	Emitter-Base Voltage	- 5	V
I_C	Collector Current (DC)	- 3	A
I_{CP}	*Collector Current (Pulse)	- 5	A
I_B	Base Current	- 1	A
P_C	Collector Dissipation (T_C=25°C)	40	W
T_J	Junction Temperature	150	°C
T_{STG}	Storage Temperature	- 65 ~ 150	°C

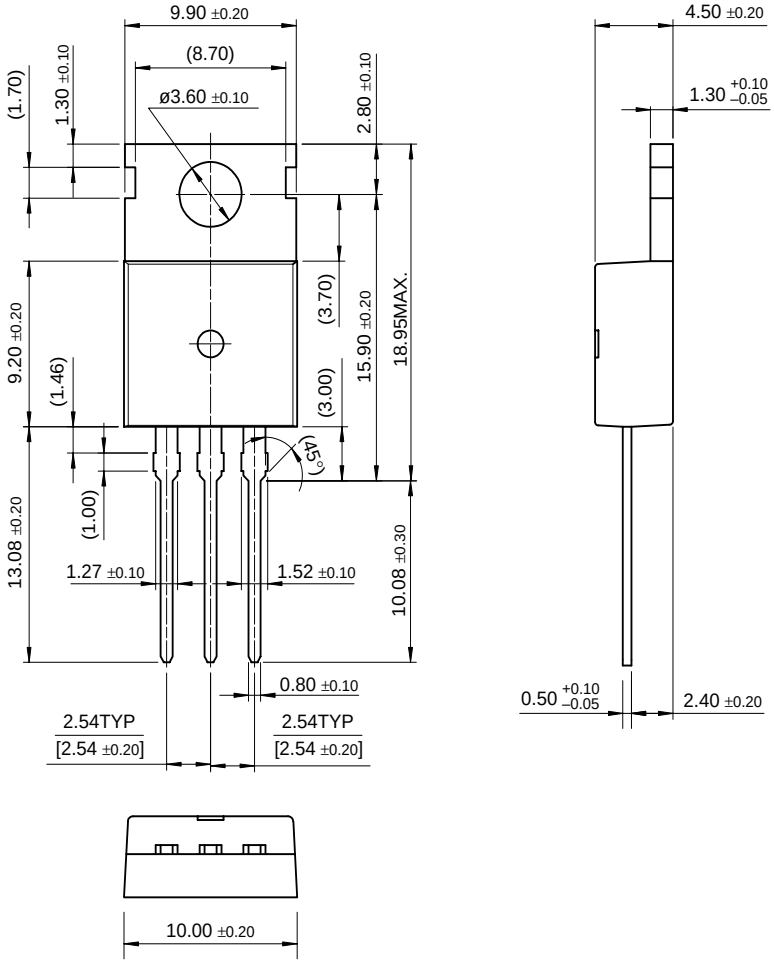
Electrical Characteristics T_C=25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
V_{CEO}(sus)	* Collector-Emitter Sustaining Voltage					
	: BD242	I_C = - 30mA, I_B = 0	- 45			V
	: BD242A		- 60			V
	: BD242B		- 80			V
	: BD242C		- 100			V
I_{CEO}	Collector Cut-off Current : BD242/A	V_{CE} = - 30V, I_B = 0			- 0.3	mA
	: BD242B/C	V_{CE} = - 60V, I_B = 0			- 0.3	mA
I_{CES}	Collector Cut-off Current : BD242	V_{CE} = - 45V, V_{BE} = 0			- 0.2	mA
	: BD242A	V_{CE} = - 60V, V_{BE} = 0			- 0.2	mA
	: BD242B	V_{CE} = - 80V, V_{BE} = 0			- 0.2	mA
	: BD242C	V_{CE} = - 100V, V_{BE} = 0			- 0.2	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 = - 1A	25			
		V_{CE} = - 4V, I_C = - 3A	10			
V_{CE}(sat)	* Collector-Emitter Saturation Voltage	I_C = - 3A, I_B = - 0.6A			- 1.2	V
V_{BE}(on)	* Base-Emitter ON Voltage	V_{CE} = - 4V, I_C = - 3A			- 1.8	V

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

Package Demensions

TO-220



Dimensions in Millimeters

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2. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

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Advance Information	Formative or In Design	This datasheet contains the design specifications for product development. Specifications may change in any manner without notice.
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No Identification Needed	Full Production	This datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
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