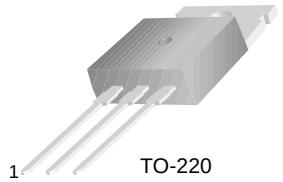
FAIRCHILD SEMICONDUCTOR™

BD241/A/B/C

Medium Power Linear and Switching Applications

- Complement to BD242/A/B/C 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_{CEO}	Collector-Emitter Voltage		
	: BD241	45	V
	: BD241A	60	V
	: BD241B	80	V
	: BD241C	100	V
V_{CER}	Collector-Emitter Voltage		
	: BD241	55	V
	: BD241A	70	V
	: BD241B	90	V
	: BD241C	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

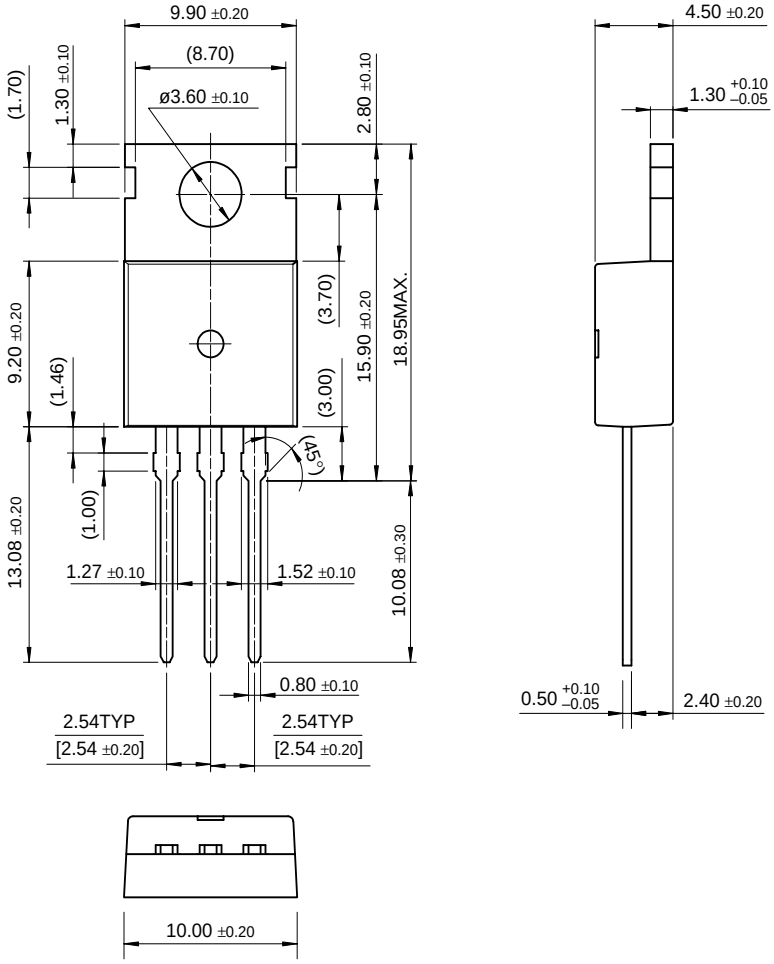
Electrical Characteristics T_C=25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
V_{CEO}(sus)	* Collector-Emitter Sustaining Voltage					
	: BD241	I_C = - 30mA, I_B = 0	45			V
	: BD241A		60			V
	: BD241B		80			V
	: BD241C		100			V
I_{CEO}	Collector Cut-off Current : BD241/A	V_{CE} = 30V, I_B = 0			0.3	mA
	: BD241B/C	V_{CE} = 60V, I_B = 0			0.3	mA
I_{CES}	Collector Cut-off Current : BD241	V_{CE} = 45V, V_{BE} = 0			0.2	mA
	: BD241A	V_{CE} = 60V, V_{BE} = 0			0.2	mA
	: BD241B	V_{CE} = 80V, V_{BE} = 0			0.2	mA
	: BD241C	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=350μs, duty Cycle≤2% Pulsed

Package Demensions

TO-220



Dimensions in Millimeters

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