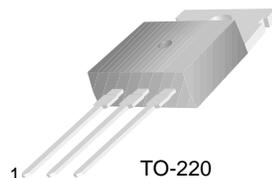**FAIRCHILD**

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 : BD241A : BD241B : BD241C	45 60 80 100	V V V V
V_{CER}	Collector-Emitter Voltage : BD241 : BD241A : BD241B : BD241C	55 70 90 115	V V V 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 : BD241A : BD241B : BD241C	I_C = - 30mA, I_B = 0	45 60 80 100			V V V V
I_{CEO}	Collector Cut-off Current : BD241/A : BD241B/C	V_{CE} = 30V, I_B = 0 V_{CE} = 60V, I_B = 0			0.3 0.3	mA mA
I_{CES}	Collector Cut-off Current : BD241 : BD241A : BD241B : BD241C	V_{CE} = 45V, V_{BE} = 0 V_{CE} = 60V, V_{BE} = 0 V_{CE} = 80V, V_{BE} = 0 V_{CE} = 100V, V_{BE} = 0			0.2 0.2 0.2 0.2	mA mA mA 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 V_{CE} = 4V, I_C = 3A	25 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

9.90 ±0.20
(8.70)
(1.70)
1.30 ±0.10
ø3.60 ±0.10
2.80 ±0.10
9.20 ±0.20
(3.70)
15.90 ±0.20
18.95MAX.
(1.46)
(3.00)
13.08 ±0.20
(45°)
(1.00)
10.08 ±0.30
1.27 ±0.10
1.52 ±0.10
0.80 ±0.10
2.54TYP
[2.54 ±0.20]
2.54TYP
[2.54 ±0.20]

4.50 ±0.20
1.30 +0.10 −0.05
0.50 +0.10 −0.05
2.40 ±0.20

10.00 ±0.20
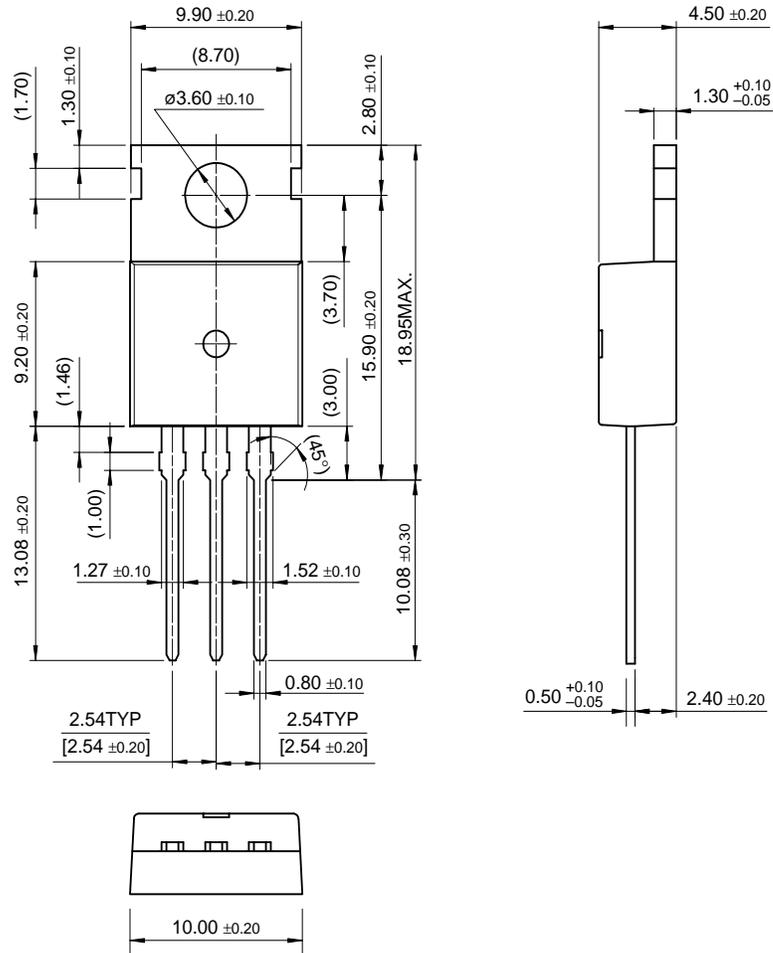
Dimensions in Millimeters

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BD241B
NPN Epitaxial Silicon Transistor

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Product	Product status	Pricing*	Package type	Leads	Packing method
BD241BTU	Full Production	$0.314	TO-220	3	RAIL

* 1,000 piece Budgetary Pricing

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