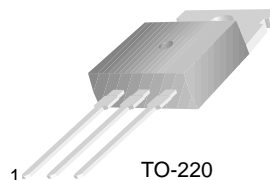


## BD241/A/B/C

### 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 $T_C=25^\circ\text{C}$ 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 ( $T_C=25^\circ\text{C}$ )	40	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

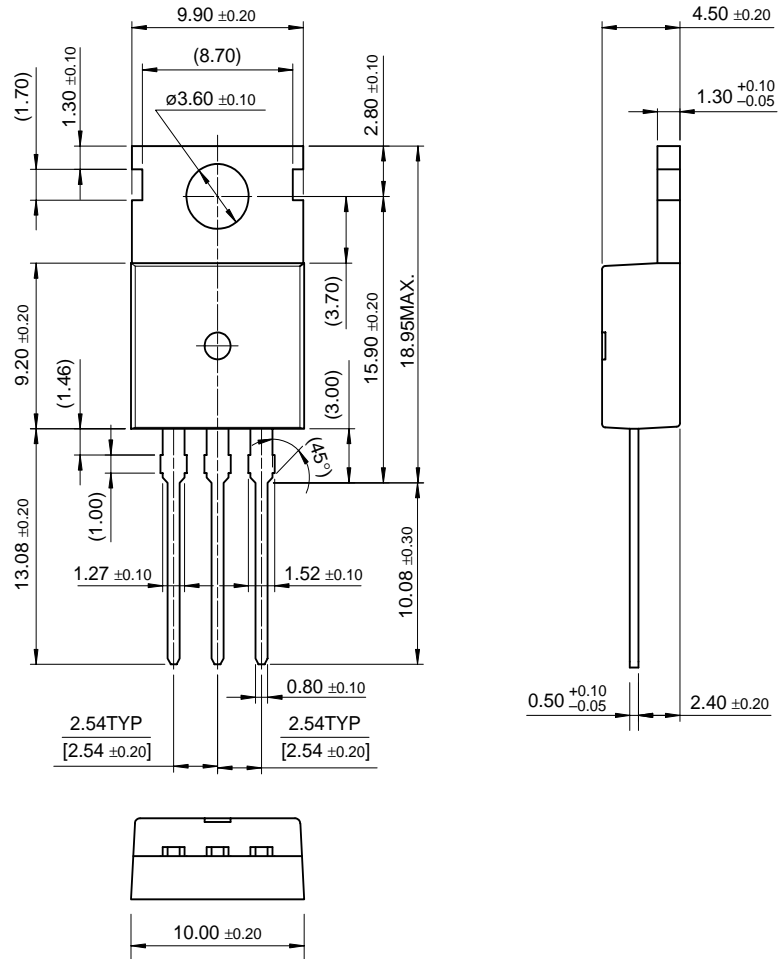
Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
$V_{CEO(sus)}$	* Collector-Emitter Sustaining Voltage					
	: BD241	$I_C = -30\text{mA}, I_B = 0$	45			V
	: BD241A		60			V
	: BD241B		80			V
: BD241C	100				V	
$I_{CEO}$	Collector Cut-off Current	$V_{CE} = 30\text{V}, I_B = 0$			0.3	mA
	: BD241A/C	$V_{CE} = 60\text{V}, I_B = 0$			0.3	mA
$I_{CES}$	Collector Cut-off Current	$V_{CE} = 45\text{V}, V_{BE} = 0$			0.2	mA
	: BD241A	$V_{CE} = 60\text{V}, V_{BE} = 0$			0.2	mA
	: BD241B	$V_{CE} = 80\text{V}, V_{BE} = 0$			0.2	mA
	: BD241C	$V_{CE} = 100\text{V}, V_{BE} = 0$			0.2	mA
$I_{EBO}$	Emitter Cut-off Current	$V_{EB} = 5\text{V}, I_C = 0$			1	mA
$h_{FE}$	* DC Current Gain	$V_{CE} = 4\text{V}, I_C = 1\text{A}$	25			
		$V_{CE} = 4\text{V}, I_C = 3\text{A}$	10			
$V_{CE(sat)}$	* Collector-Emitter Saturation Voltage	$I_C = 3\text{A}, I_B = 0.6\text{A}$			1.2	V
$V_{BE(on)}$	* Base-Emitter ON Voltage	$V_{CE} = 4\text{V}, I_C = 3\text{A}$			1.8	V

\* Pulse Test:  $PW=350\mu\text{s}$ , duty Cycle $\leq 2\%$  Pulsed

# Package Dimensions

BD241/A/B/C

## TO-220



Dimensions in Millimeters

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CROSSVOLT™	POP™	UHC™
E <sup>2</sup> CMOS™	PowerTrench®	VCX™
FACT™	QFET™	
FACT Quiet Series™	QS™	
FAST®	Quiet Series™	
FASTr™	SuperSOT™-3	
GTO™	SuperSOT™-6	

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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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