

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 $T_C=25^\circ\text{C}$ 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 ($T_C=25^\circ\text{C}$)	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					
	: BD242	$I_C = - 30\text{mA}, I_B = 0$	- 45			V
	: BD242A		- 60			V
	: BD242B		- 80			V
	: BD242C		- 100			V
I_{CEO}	Collector Cut-off Current	$V_{CE} = - 30\text{V}, I_B = 0$			- 0.3	mA
	: BD242B/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
	: BD242A	$V_{CE} = - 60\text{V}, V_{BE} = 0$			- 0.2	mA
	: BD242B	$V_{CE} = - 80\text{V}, V_{BE} = 0$			- 0.2	mA
	: BD242C	$V_{CE} = - 100\text{V}, V_{BE} = 0$			- 0.2	mA
	I_{EBO}	Emitter Cut-off Current	$V_{EB} = - 5\text{V}, I_C = 0$			- 1
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=300 μs , duty Cycles \leq 2% Pulsed

Package Dimensions

BD242/A/B/C

TO-220



Dimensions in Millimeters

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