

Silicon NPN Power Transistors

BD241/A/B/C

DESCRIPTION

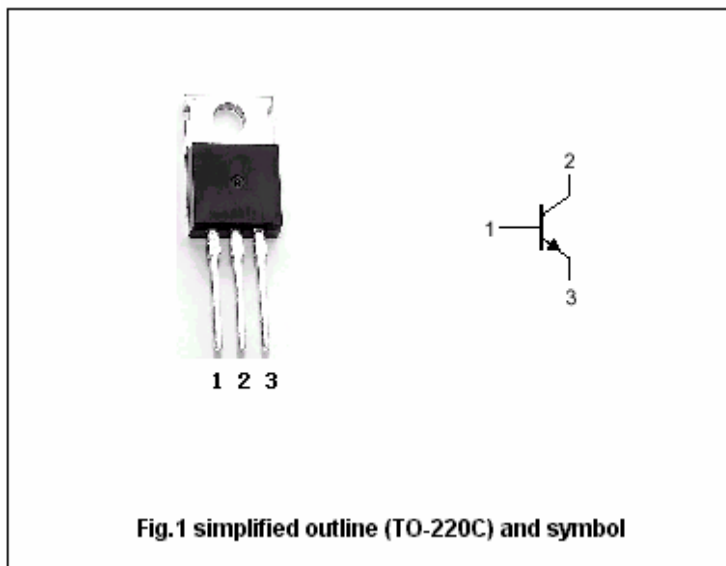
- With TO-220C package
- Complement to type BD242/A/B/C

APPLICATIONS

- For medium power linear and switching applications

PINNING

PIN	DESCRIPTION
1	Base
2	Collector;connected to mounting base
3	Emitter

Absolute maximum ratings ($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	BD241	Open emitter	55	V
		BD241A		70	
		BD241B		90	
		BD241C		115	
V_{CEO}	Collector-emitter voltage	BD241	Open base	45	V
		BD241A		60	
		BD241B		80	
		BD241C		100	
V_{EBO}	Emitter-base voltage		Open collector	5	V
I_C	Collector current			3	A
I_{CM}	Collector current-peak			5	A
I_B	Base current			1	A
P_C	Collector power dissipation		$T_C=25^\circ\text{C}$	40	W
T_j	Junction temperature			150	$^\circ\text{C}$
T_{stg}	Storage temperature			-65~150	$^\circ\text{C}$

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CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO(SUS)}	Collector-emitter sustaining voltage	BD241	I _C =30mA; I _B =0	45			V
		BD241A		60			
		BD241B		80			
		BD241C		100			
V _{CEsat}	Collector-emitter saturation voltage		I _C =3A; I _B =0.6 A			1.2	V
V _{BE}	Base-emitter on voltage		I _C =3A ; V _{CE} =4V			1.8	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				
I _{CES}	Collector cut-off current	BD241	V _{CE} =45V; V _{BE} =0			0.2	mA
		BD241A	V _{CE} =60V; V _{BE} =0				
		BD241B	V _{CE} =80V; V _{BE} =0				
		BD241C	V _{CE} =100V; V _{BE} =0				
I _{EBO}	Emitter cut-off current		V _{EB} =5V; I _C =0			1	mA
h _{FE-1}	DC current gain		I _C =1A ; V _{CE} =4V	25			
h _{FE-2}	DC current gain		I _C =3A ; V _{CE} =4V	10			

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PACKAGE OUTLINE

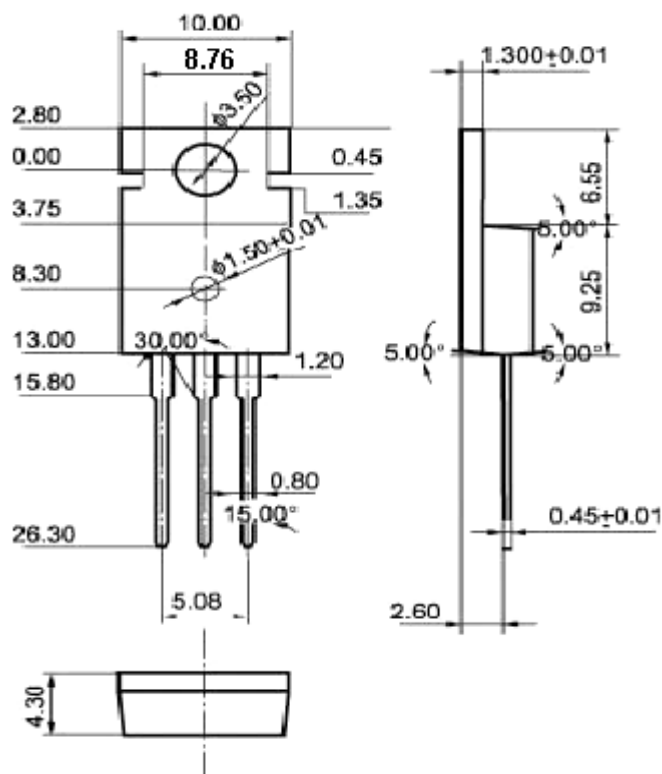


Fig.2 Outline dimensions (unindicated tolerance:±0.10 mm)