

Silicon PNP Power Transistors

BDX34/A/B/C

DESCRIPTION

- With TO-220C package
- High DC current gain
- DARLINGTON
- Complement to type BDX33/A/B/C

APPLICATIONS

- For power linear and switching applications

PINNING

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

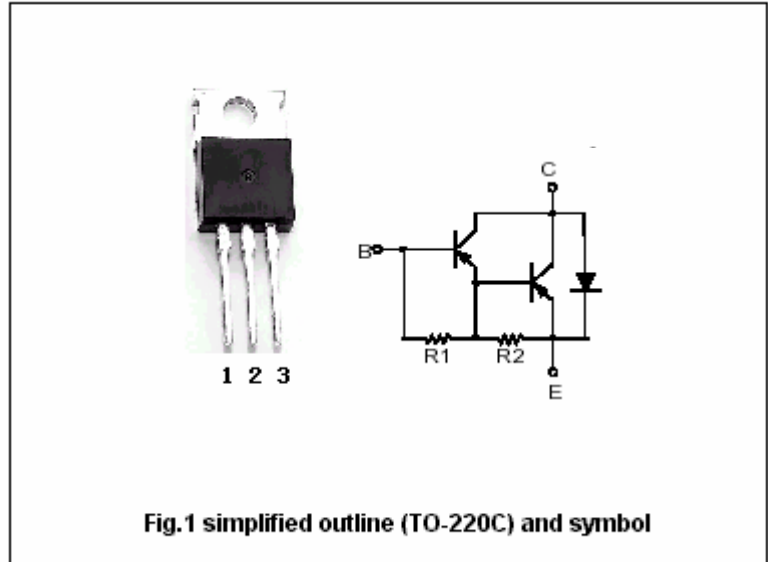


Fig.1 simplified outline (TO-220C) and symbol

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

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	BDX34	-45	V
		BDX34A	-60	
		BDX34B	-80	
		BDX34C	-100	
V_{CEO}	Collector-emitter voltage	BDX34	-45	V
		BDX34A	-60	
		BDX34B	-80	
		BDX34C	-100	
V_{EBO}	Emitter-base voltage	Open collector	-5	V
I_C	Collector current-DC		-10	A
I_{CM}	Collector current-Pulse		-15	A
I_B	Base current		-0.25	A
P_C	Collector power dissipation	$T_C=25^\circ\text{C}$	70	W
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-65~150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal resistance junction to case	1.78	$^\circ\text{C}/\text{W}$

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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	BDX34	I _C =-0.1A, I _B =0	-45			V
		BDX34A		-60			
		BDX34B		-80			
		BDX34C		-100			
V _{CEsat}	Collector-emitter saturation voltage	BDX34/34A	I _C =-4A, I _B =-8mA			-2.5	V
		BDX34B/34C	I _C =-3A, I _B =-6mA				
V _{BE}	Base-emitter on voltage	BDX34/34A	I _C =-4A; V _{CE} =-3V			-2.5	V
		BDX34B/34C	I _C =-3A; V _{CE} =-3V				
I _{CBO}	Collector cut-off current	BDX34	V _{CB} =-45V, I _E =0			-0.2	mA
		BDX34A	V _{CB} =-60V, I _E =0				
		BDX34B	V _{CB} =-80V, I _E =0				
		BDX34C	V _{CB} =-100V, I _E =0				
I _{CEO}	Collector cut-off current	BDX34	V _{CE} =-22V, I _B =0			-0.5	mA
		BDX34A	V _{CE} =-30V, I _B =0				
		BDX34B	V _{CE} =-40V, I _B =0				
		BDX34C	V _{CE} =-50V, I _B =0				
I _{EBO}	Emitter cut-off current		V _{EB} =-5V; I _C =0			-5.0	mA
h _{FE}	DC current gain	BDX34/34A	I _C =-4A; V _{CE} =-3V	750			
		BDX34B/34C	I _C =-3A; V _{CE} =-3V				
V _F	Forward diode voltage		I _F =-8A			-4.0	V

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PACKAGE OUTLINE

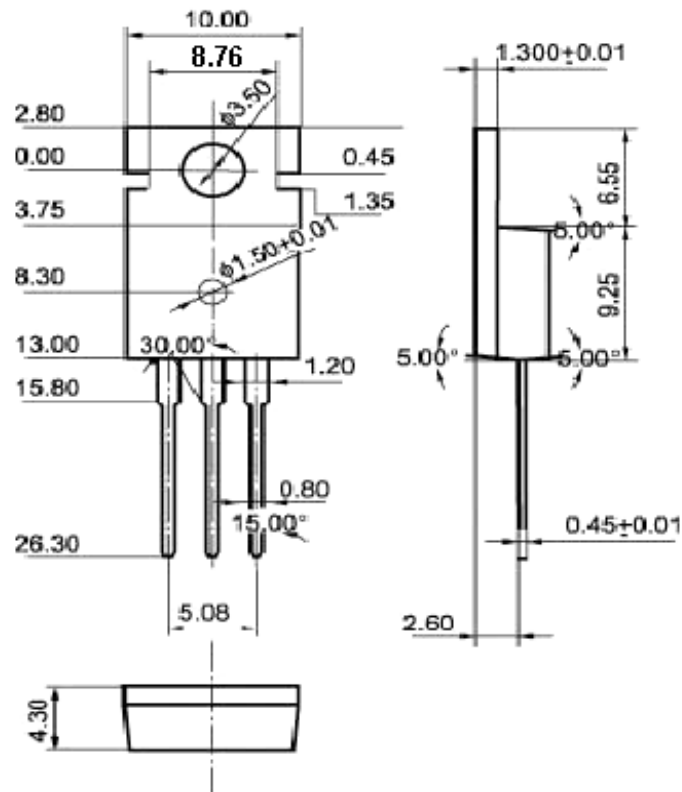


Fig.2 Outline dimensions