

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

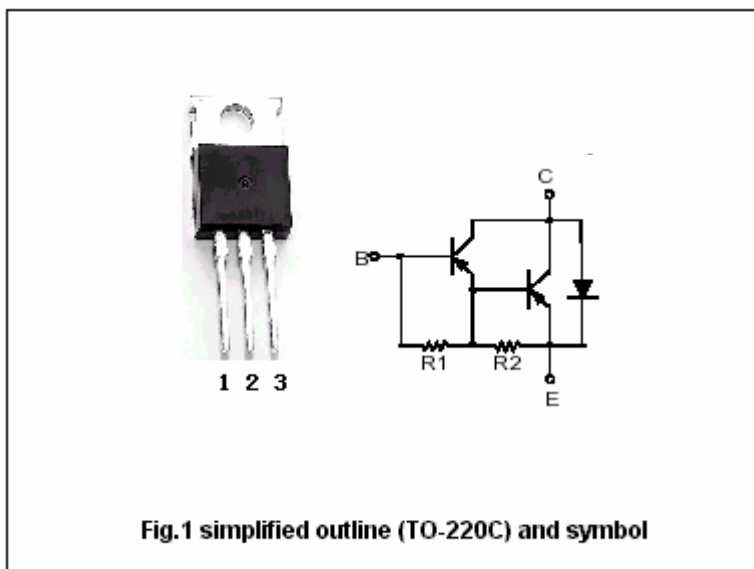


Fig.1 simplified outline (TO-220C) and symbol

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

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	BDX34	Open emitter	-45	V
		BDX34A		-60	
		BDX34B		-80	
		BDX34C		-100	
V_{CEO}	Collector-emitter voltage	BDX34	Open base	-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

Tj=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

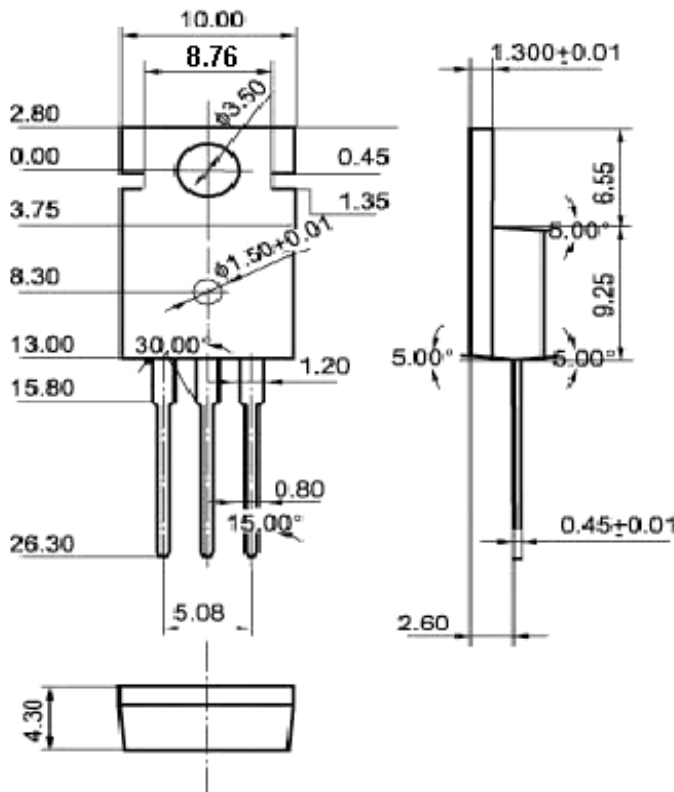


Fig.2 Outline dimensions