

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

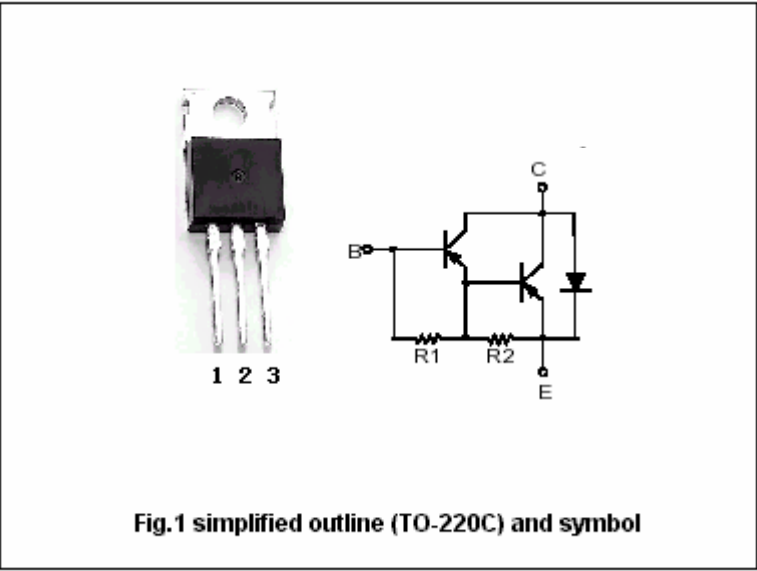


Fig.1 simplified outline (TO-220C) and symbol

Absolute maximum ratings(Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	Open emitter	-45	V
			-60	
			-80	
			-100	
V _{CEO}	Collector-emitter voltage	Open base	-45	V
			-60	
			-80	
			-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°C	70	W
T _j	Junction temperature		150	°C
T _{stg}	Storage temperature		-65~150	°C

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal resistance junction to case	1.78	°C/W

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CHARACTERISTICS

 $T_j=25^{\circ}\text{C}$ 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

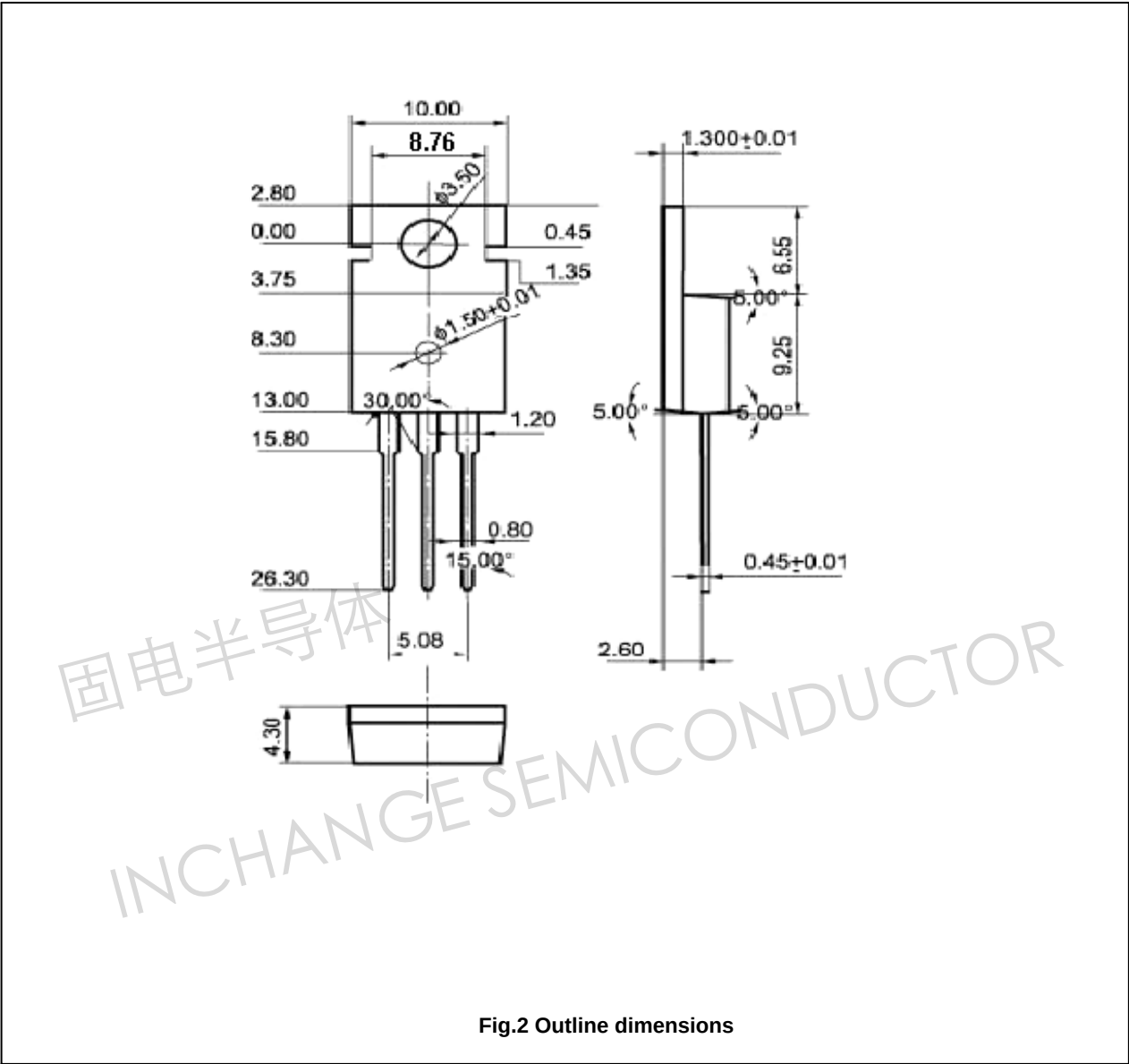


Fig.2 Outline dimensions