

Silicon PNP Power Transistors

BDX54/A/B/C

DESCRIPTION

- With TO-220C package
- High DC current gain
- DARLINGTON
- Complement to type BDX53/A/B/C

APPLICATIONS

- Power linear and switching applications
- Hammer drivers, audio amplifiers

PINNING

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

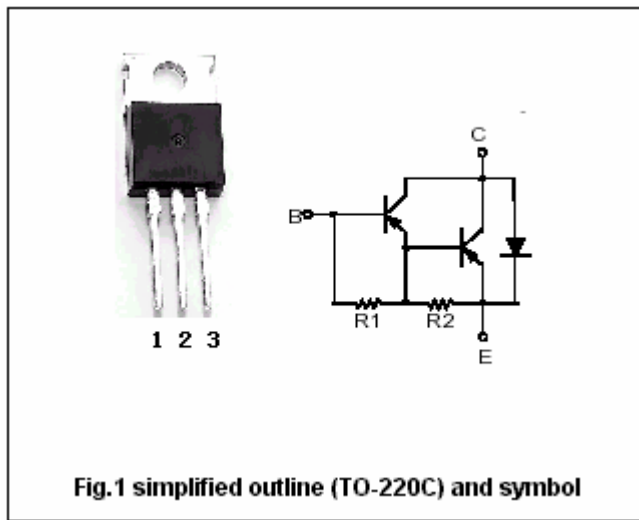


Fig.1 simplified outline (TO-220C) and symbol

Absolute maximum ratings(Ta=25)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT	
V _{CBO}	Collector-base voltage	Open emitter	BDX54	-45	V
			BDX54A	-60	
			BDX54B	-80	
			BDX54C	-100	
V _{CEO}	Collector-emitter voltage	Open base	BDX54	-45	V
			BDX54A	-60	
			BDX54B	-80	
			BDX54C	-100	
V _{EBO}	Emitter-base voltage	Open collector	-5	V	
I _C	Collector current-DC		-8	A	
I _{CM}	Collector current-Pulse		-12	A	
I _B	Base current		-0.2	A	
P _C	Collector power dissipation	T _C =25	60	W	
T _j	Junction temperature		150		
T _{stg}	Storage temperature		-65~150		

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal resistance junction to case	2.08	/W

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CHARACTERISTICS

T_j=25 unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT	
V _{CEO(SUS)}	Collector-emitter sustaining voltage	BDX54	I _C =-0.1A, I _B =0	-45			V
		BDX54A		-60			
		BDX54B		-80			
		BDX54C		-100			
V _{CEsat}	Collector-emitter saturation voltage	I _C =-3A, I _B =-12mA			-2.0	V	
V _{BE sat}	Base-emitter saturation voltage	I _C =-3A, I _B =-12mA			-2.5	V	
I _{CBO}	Collector cut-off current	BDX54	V _{CB} =-45V, I _E =0			-0.2	mA
		BDX54A	V _{CB} =-60V, I _E =0				
		BDX54B	V _{CB} =-80V, I _E =0				
		BDX54C	V _{CB} =-100V, I _E =0				
I _{CEO}	Collector cut-off current	BDX54	V _{CE} =-22V, I _B =0			-0.5	mA
		BDX54A	V _{CE} =-30V, I _B =0				
		BDX54B	V _{CE} =-40V, I _B =0				
		BDX54C	V _{CE} =-50V, I _B =0				
I _{EBO}	Emitter cut-off current	V _{EB} =-5V; I _C =0			-2	mA	
h _{FE}	DC current gain	I _C =-3A; V _{CE} =-3V	750				
V _{F-1}	Forward diode voltage	I _F =-3A		-1.8	-2.5	V	
V _{F-2}	Forward diode voltage	I _F =-8A		-2.5		V	

