

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

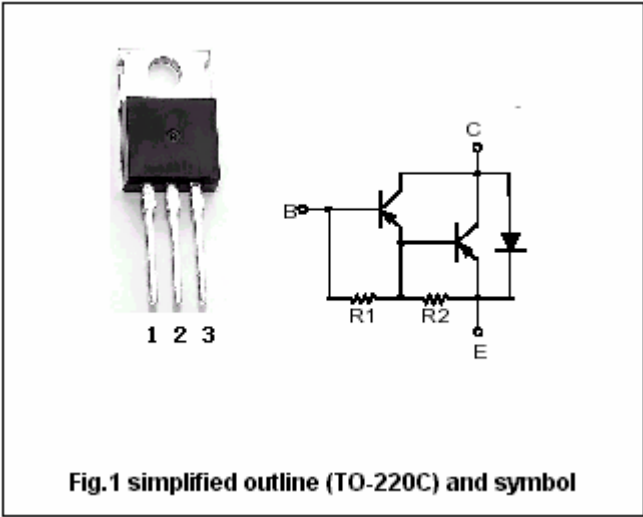


Fig.1 simplified outline (TO-220C) and symbol

Absolute maximum ratings(Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	BDX54	-45	V
		BDX54A	-60	
		BDX54B	-80	
		BDX54C	-100	
V _{CEO}	Collector-emitter voltage	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°C	60	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	2.08	°C/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	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

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PACKAGE OUTLINE

