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

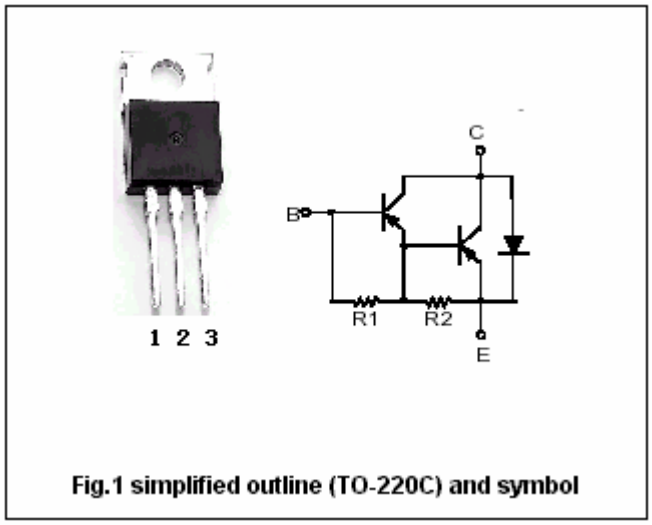


Fig.1 simplified outline (TO-220C) and symbol

Absolute maximum ratings(Ta=25□)

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	BDX54	Open emitter	-45	V
		BDX54A		-60	
		BDX54B		-80	
		BDX54C		-100	
V_{CEO}	Collector-emitter voltage	BDX54	Open base	-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
$R_{th\ j\text{-}c}$	Thermal resistance junction to case	2.08	□/W

CHARACTERISTICS

Tj=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

PACKAGE OUTLINE

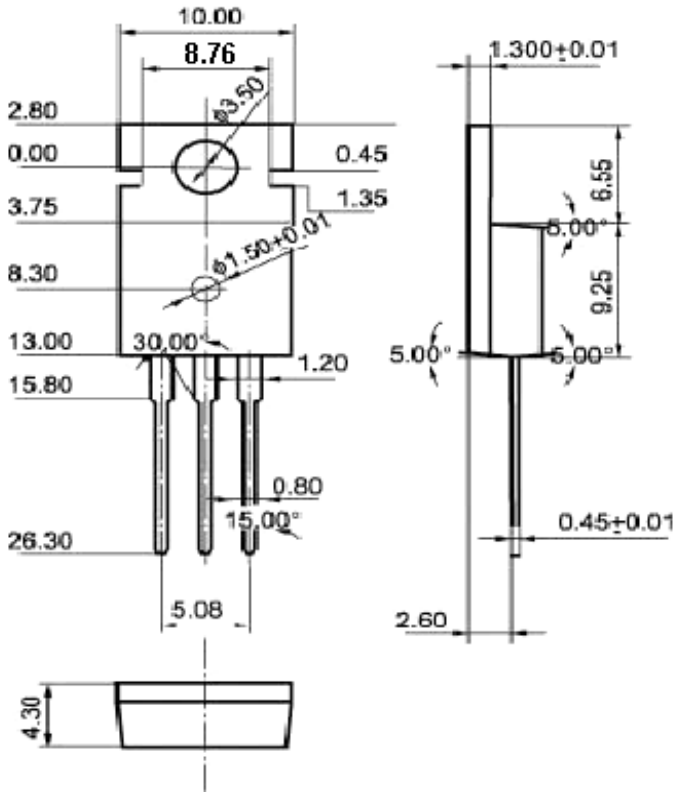


Fig.2 Outline dimensions