

Silicon PNP Power Transistors

BDT92

DESCRIPTION

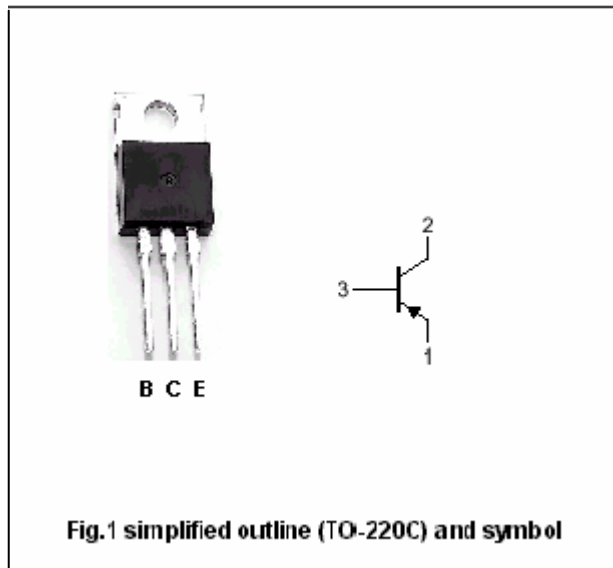
- With TO-220C package
- Complement to type BDT91

APPLICATIONS

- For use in general purpose power amplifier and switching applications

PINNING

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

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

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	-60	V
V_{CEO}	Collector-emitter voltage	Open base	-60	V
V_{EBO}	Emitter-base voltage	Open collector	-5	V
I_C	Collector current		-10	A
I_B	Base current		-6	A
P_C	Collector power dissipation	$T_C \leq 25^\circ\text{C}$	90	W
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-55~150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal resistance junction to case	1.39	$^\circ\text{C}/\text{W}$

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CHARACTERISTICS

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 $T_j = 25^\circ\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-emitter sustaining voltage	$I_C = -100\text{mA}$; $I_B = 0$	-60			V
$V_{CEsat-1}$	Collector-emitter saturation voltage	$I_C = -3\text{A}$; $I_B = -0.3\text{A}$			-1.1	V
$V_{CEsat-2}$	Collector-emitter saturation voltage	$I_C = -10\text{A}$; $I_B = -3.3\text{A}$			-3.0	V
V_{BE}	Base-emitter voltage	$I_C = -4\text{A}$; $V_{CE} = -4\text{V}$			-1.6	V
I_{CBO}	Collector cut-off current	$V_{CB} = -60\text{V}$; $I_E = 0$			-0.1	mA
I_{CEO}	Collector cut-off current	$V_{CE} = -30\text{V}$; $I_B = 0$			-1.0	mA
I_{EBO}	Emitter cut-off current	$V_{EB} = -5\text{V}$; $I_C = 0$			-1.0	mA
h_{FE-1}	DC current gain	$I_C = -4\text{A}$; $V_{CE} = -4\text{V}$	20		200	
h_{FE-2}	DC current gain	$I_C = -10\text{A}$; $V_{CE} = -4\text{V}$	5			
f_T	Transition frequency	$I_C = -0.5\text{A}$; $V_{CE} = -10\text{V}$	4			MHz

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PACKAGE OUTLINE

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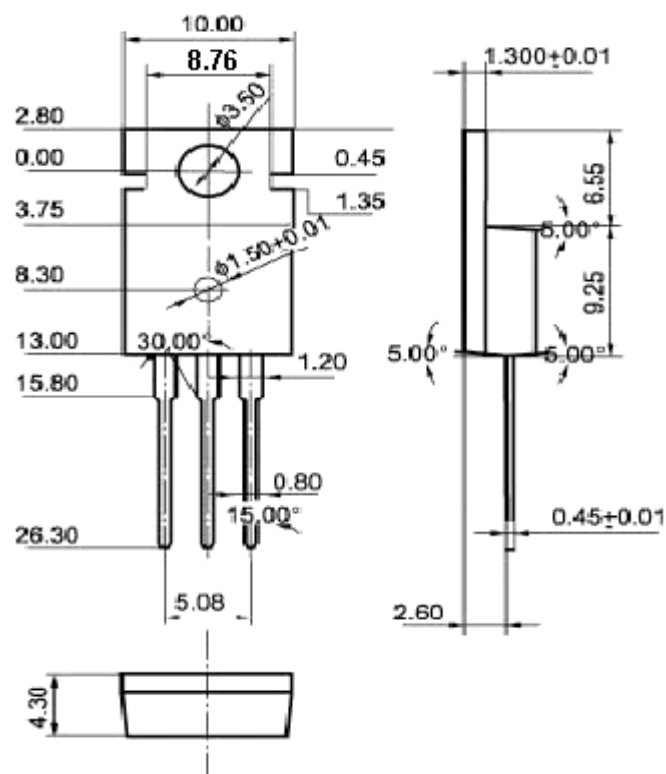


Fig.2 Outline dimensions (unindicated tolerance:±0.10 mm)