

Silicon PNP Power Transistors

BDT88

DESCRIPTION

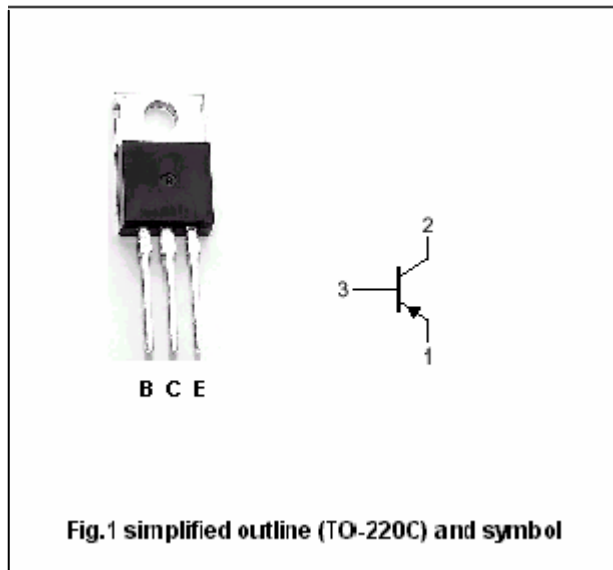
- With TO-220C package
- Complement to type BDT87

APPLICATIONS

- Intended for use in power linear 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	-120	V
V_{CEO}	Collector-emitter voltage	Open base	-120	V
V_{EBO}	Emitter-base voltage	Open collector	-5	V
I_C	Collector current		-15	A
I_B	Base current		-5	A
P_C	Collector power dissipation	$T_C \leq 25^\circ\text{C}$	125	W
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-65~150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal resistance junction to case	1.38	$^\circ\text{C}/\text{W}$

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CHARACTERISTICS

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

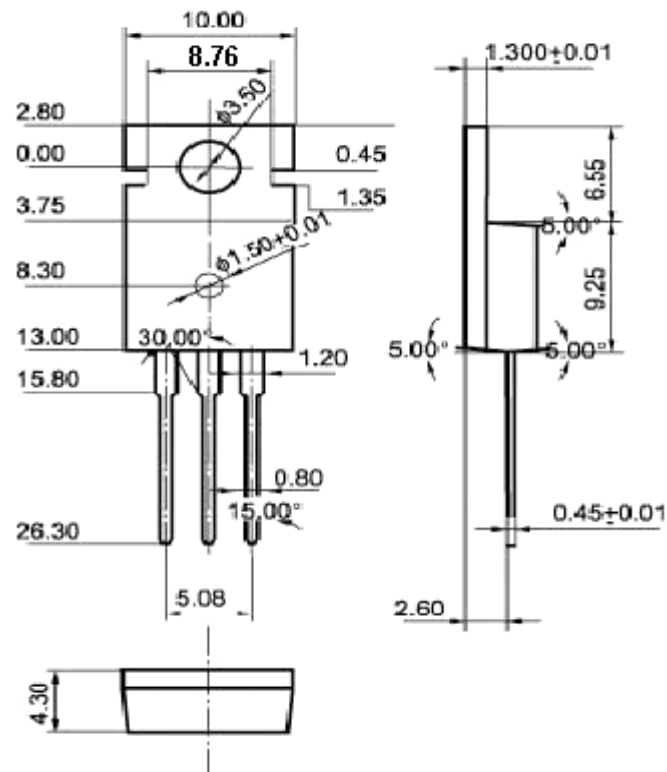
SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-emitter sustaining voltage	$I_C = -50\text{mA}$; $I_B = 0$	-120			V
V_{CEsat}	Collector-emitter saturation voltage	$I_C = -7\text{A}$; $I_B = -0.7\text{A}$			-1.6	V
V_{BE}	Base-emitter voltage	$I_C = -5\text{A}$; $V_{CE} = -4\text{V}$			-1.5	V
I_{CBO}	Collector cut-off current	$V_{CB} = -120\text{V}$; $I_E = 0$			-0.5	mA
I_{CEO}	Collector cut-off current	$V_{CE} = -60\text{V}$; $I_B = 0$			-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	$I_C = -0.5\text{A}$; $V_{CE} = -4\text{V}$	40		250	
h_{FE-2}	DC current gain	$I_C = -5\text{A}$; $V_{CE} = -4\text{V}$	40			
h_{FE-3}	DC current gain	$I_C = -10\text{A}$; $V_{CE} = -4\text{V}$	5			
f_T	Transition frequency	$I_C = -0.5\text{A}$; $V_{CE} = -10\text{V}$		20		MHz

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PACKAGE OUTLINE

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