

Silicon PNP Power Transistors

BDW47

DESCRIPTION

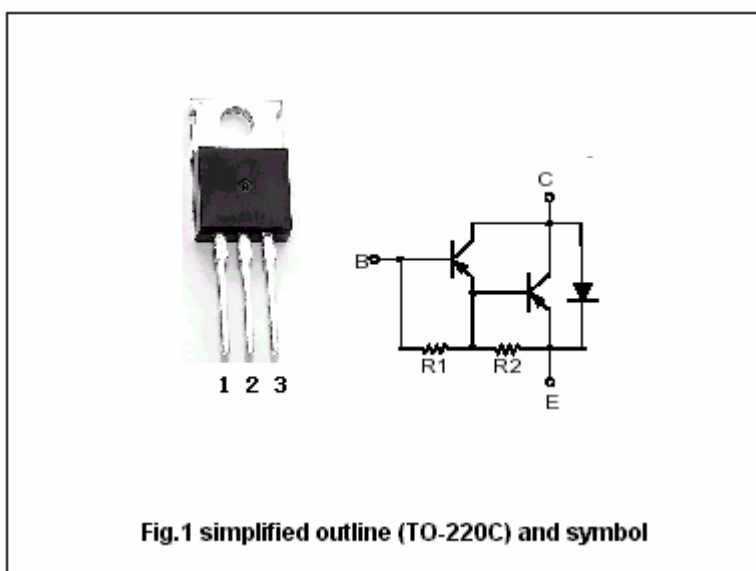
- With TO-220C package
- Complement to type BDW42
- DARLINGTON
- High DC current gain
- Low collector saturation voltage

APPLICATIONS

- For general purpose and low speed switching applications

PINNING

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

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

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	-100	V
V_{CEO}	Collector-emitter voltage	Open base	-100	V
V_{EBO}	Emitter-base voltage	Open collector	-5	V
I_C	Collector current-DC		-15	A
I_B	Base current		-0.5	A
P_D	Total power dissipation	$T_C=25^\circ\text{C}$	85	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	1.47	$^\circ\text{C}/\text{W}$

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CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CE0(SUS)}	Collector-emitter sustaining voltage	I _C =-30mA, I _B =0	-100			V
V _{CEsat-1}	Collector-emitter saturation voltage	I _C =-5A, I _B =-10mA			-2.0	V
V _{CEsat-2}	Collector-emitter saturation voltage	I _C =-10A, I _B =-50mA			-3.0	V
V _{BE}	Base-emitter on voltage	I _C =-10A ; V _{CE} =-4V			-3.0	V
I _{CBO}	Collector cut-off current	V _{CB} =-100V, I _E =0			-1.0	mA
I _{CEO}	Collector cut-off current	V _{CE} =-50V, I _B =0			-2.0	mA
I _{EBO}	Emitter cut-off current	V _{EB} =-5V; I _C =0			-2.0	mA
h _{FE-1}	DC current gain	I _C =-5A ; V _{CE} =-4V	1000			
h _{FE-2}	DC current gain	I _C =-10A ; V _{CE} =-4V	250			
f _T	Transition frequency	I _C =-3A ; V _{CE} =-3V;f=1MHz	4.0			MHz
C _{OB}	Output capacitance	I _E =0 ; V _{CB} =-10V;f=0.1MHz			300	pF

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PACKAGE OUTLINE

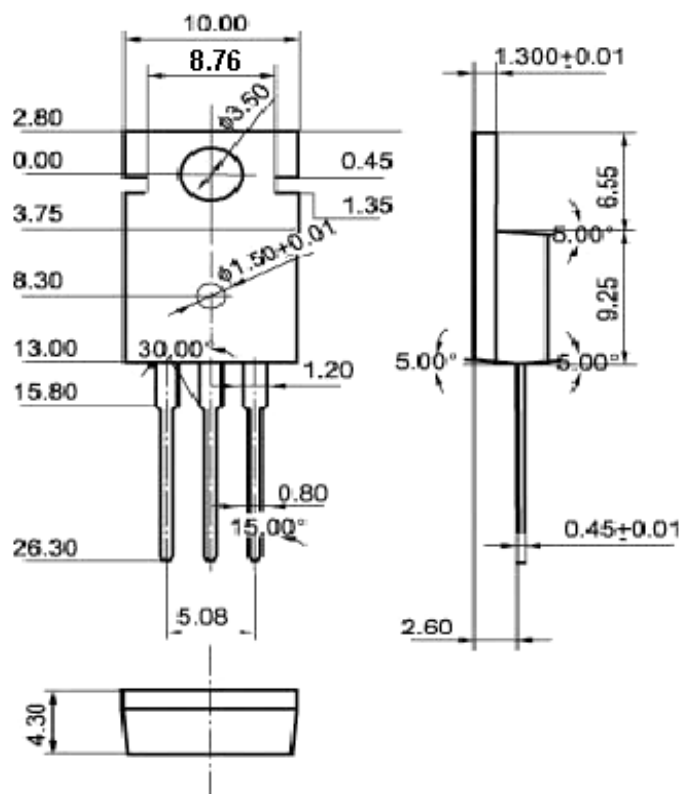


Fig.2 Outline dimensions