

**Silicon PNP Power Transistors**

**BDW52C**

**DESCRIPTION**

- With TO-3 package
- Complement to type BDW51C
- Excellent safe operating area

**APPLICATIONS**

- For use in power linear and switching applications

**PINNING(see Fig.2)**

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

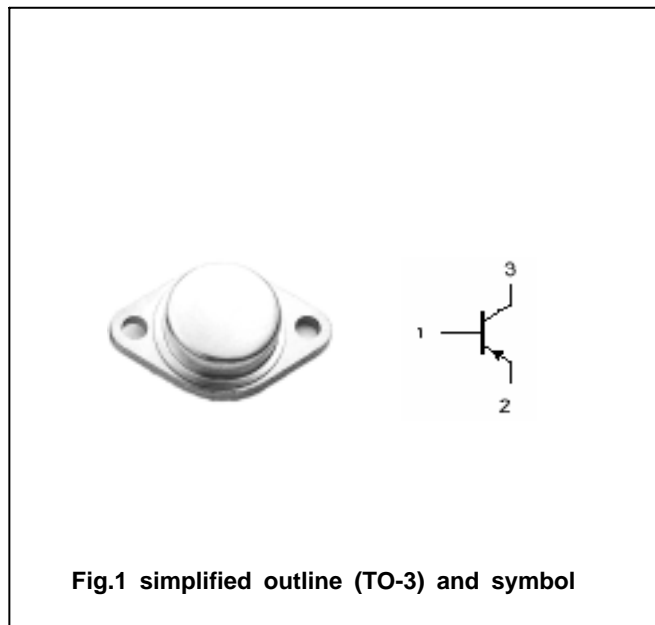


Fig.1 simplified outline (TO-3) and symbol

**Absolute maximum ratings(Ta= )**

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	Open emitter	-100	V
V <sub>CEO</sub>	Collector-emitter voltage	Open base	-100	V
V <sub>EBO</sub>	Emitter-base voltage	Open collector	-5	V
I <sub>C</sub>	Collector current		-15	A
I <sub>CM</sub>	Collector current-peak		-20	A
I <sub>B</sub>	Base current		-7	A
P <sub>C</sub>	Collector power dissipation	T <sub>C</sub> =25	125	W
T <sub>j</sub>	Junction temperature		200	
T <sub>stg</sub>	Storage temperature		-65~200	

**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
R <sub>th j-c</sub>	Thermal resistance junction to case	1.4	/W

## Silicon PNP Power Transistors

## BDW52C

## CHARACTERISTICS

T<sub>j</sub>=25 unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>CEO(SUS)</sub>	Collector-emitter sustaining voltage	I <sub>C</sub> =-0.1A ; I <sub>B</sub> =0	-100			V
V <sub>CEsat-1</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =-5A; I <sub>B</sub> =-0.5A			-1.0	V
V <sub>CEsat-2</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =-10A; I <sub>B</sub> =-2.5A			-3.0	V
V <sub>BEsat</sub>	Base-emitter saturation voltage	I <sub>C</sub> =-10A; I <sub>B</sub> =-2.5A			-2.5	V
V <sub>BE</sub>	Base-emitter on voltage	I <sub>C</sub> =-5A ; V <sub>CE</sub> =-4V			-1.5	V
I <sub>CEO</sub>	Collector cut-off current	V <sub>CE</sub> =-50V; I <sub>B</sub> =0			-1.0	mA
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =-100V; I <sub>E</sub> =0 T <sub>C</sub> =150			-0.5 -5.0	mA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =-5V; I <sub>C</sub> =0			-2.0	mA
h <sub>FE-1</sub>	DC current gain	I <sub>C</sub> =-5A ; V <sub>CE</sub> =-4V	20		150	
h <sub>FE-2</sub>	DC current gain	I <sub>C</sub> =-10A ; V <sub>CE</sub> =-4V	5			
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =-0.5A ; V <sub>CE</sub> =-4V	3			MHz

PACKAGE OUTLINE

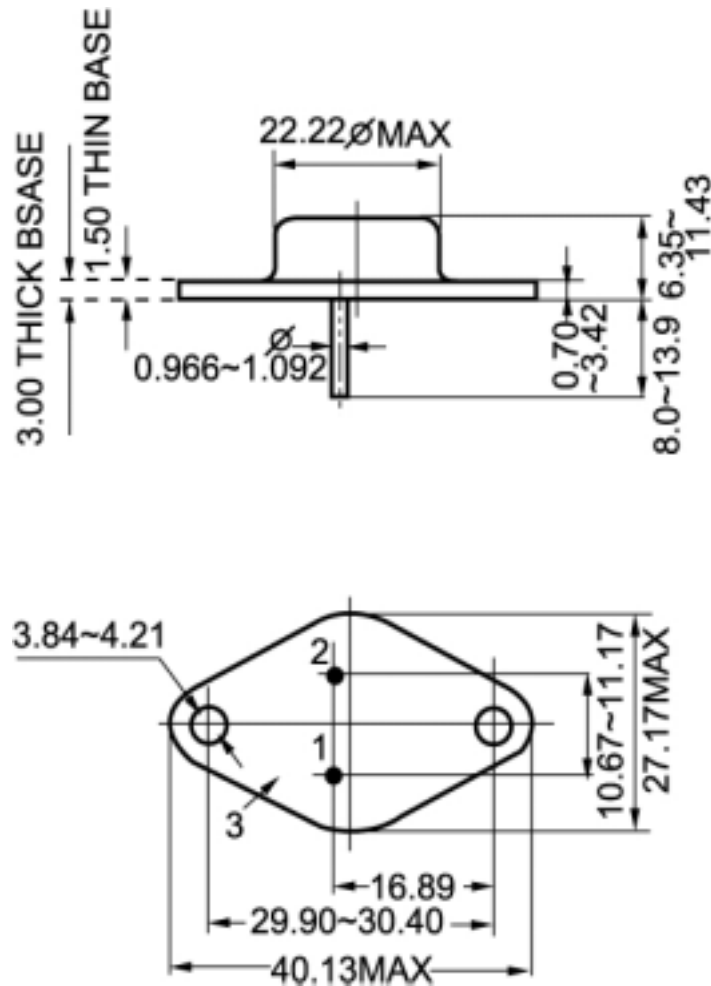


Fig.2 outline dimensions (unindicated tolerance: ± 0.1mm)