

Silicon NPN Power Transistors

BDW51C

DESCRIPTION

www.datasheet4u.com

- With TO-3 package
- Complement to type BDW52C
- 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

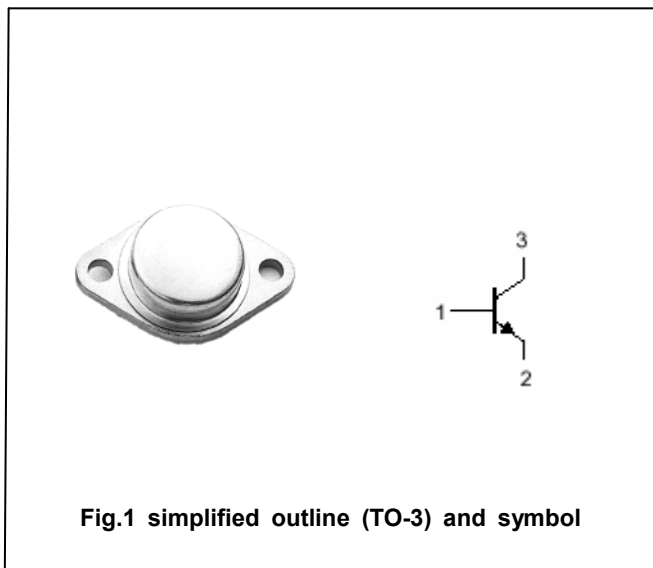


Fig.1 simplified outline (TO-3) and symbol

Absolute maximum ratings(Ta=□)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{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		15	A
I _{CM}	Collector current-peak		20	A
I _B	Base current		7	A
P _C	Collector power dissipation	T _C =25□	125	W
T _j	Junction temperature		200	□
T _{stg}	Storage temperature		-65~200	□

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal resistance junction to case	1.4	□/W

Silicon NPN Power Transistors

BDW51C

CHARACTERISTICS

T_j=25°C unless otherwise specified

www.datasheet4u.com

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO(SUS)}	Collector-emitter sustaining voltage	I _C =0.1A ; I _B =0	100			V
V _{CEsat-1}	Collector-emitter saturation voltage	I _C =5A; I _B =0.5A			1.0	V
V _{CEsat-2}	Collector-emitter saturation voltage	I _C =10A; I _B =2.5A			3.0	V
V _{BEsat}	Base-emitter saturation voltage	I _C =10A; I _B =2.5A			2.5	V
V _{BE}	Base-emitter on voltage	I _C =5A ; V _{CE} =4V			1.5	V
I _{CEO}	Collector cut-off current	V _{CE} =50V; I _B =0			1.0	mA
I _{CBO}	Collector cut-off current	V _{CB} =100V; I _E =0 T _C =150°C			0.5 5.0	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	20		150	
h _{FE-2}	DC current gain	I _C =10A ; V _{CE} =4V	5			
f _T	Transition frequency	I _C =0.5A ; V _{CE} =4V	3			MHz

PACKAGE OUTLINE

www.datasheet4u.com

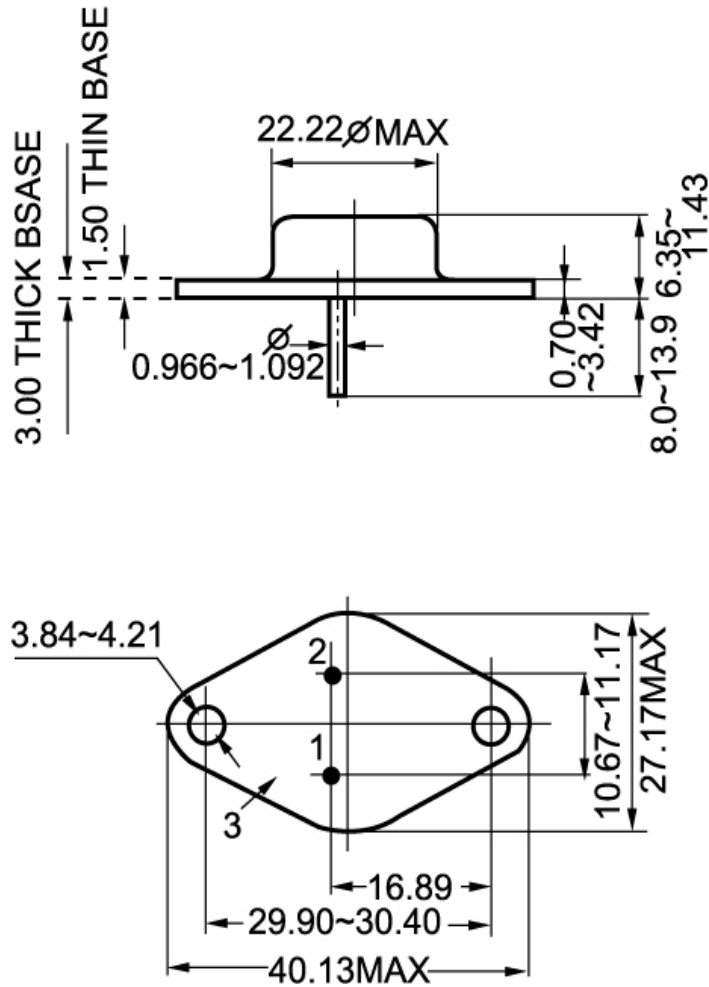


Fig.2 outline dimensions (unindicated tolerance:±0.1mm)