

**Silicon NPN Power Transistors**

**BDX67**

**DESCRIPTION**

- With TO-3 package
- High current capability
- DARLINGTON

**APPLICATIONS**

- Designed for power amplification and switching application.

**PINNING (See Fig.2)**

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

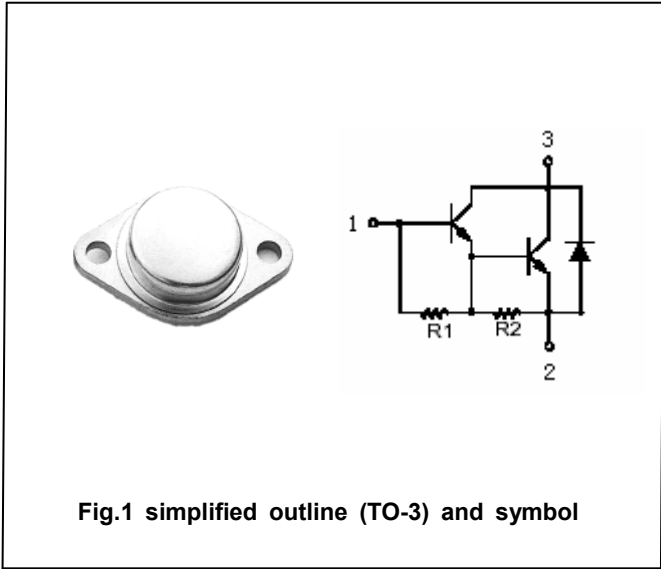


Fig.1 simplified outline (TO-3) and symbol

**Absolute maximum ratings(Ta=25°C)**

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	Open emitter	80	V
V <sub>CEO</sub>	Collector-emitter voltage	Open base	60	V
V <sub>EBO</sub>	Emitter-base voltage	Open collector	5	V
I <sub>C</sub>	Collector current		16	A
I <sub>CM</sub>	Collector current(peak)		20	A
I <sub>B</sub>	Base current		0.25	A
P <sub>T</sub>	Total power dissipation	T <sub>C</sub> =25°C	117	W
T <sub>j</sub>	Junction temperature		150	°C
T <sub>stg</sub>	Storage temperature		-55~200	°C

**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
R <sub>th j-c</sub>	Thermal resistance from junction to case	1.17	°C/W

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## CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>CEQ(SUS)</sub>	Collector-emitter sustaining voltage	I <sub>C</sub> =0.1A ; I <sub>B</sub> =0; L=25mH	60			V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =10A ; I <sub>B</sub> =0.04A			2	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =40V; I <sub>E</sub> =0 T <sub>C</sub> =150°C			1 5	mA
I <sub>CEO</sub>	Collector cut-off current	V <sub>CE</sub> =30V; I <sub>B</sub> =0			3	mA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =5V; I <sub>C</sub> =0			3	mA

## Switching times

t <sub>on</sub>	Turn-on time	I <sub>C</sub> =10A ; I <sub>B1</sub> =-I <sub>B2</sub> =0.04A V <sub>CC</sub> =12V ;		1.0		μs
t <sub>off</sub>	Turn-off time			3.5		μs

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PACKAGE OUTLINE

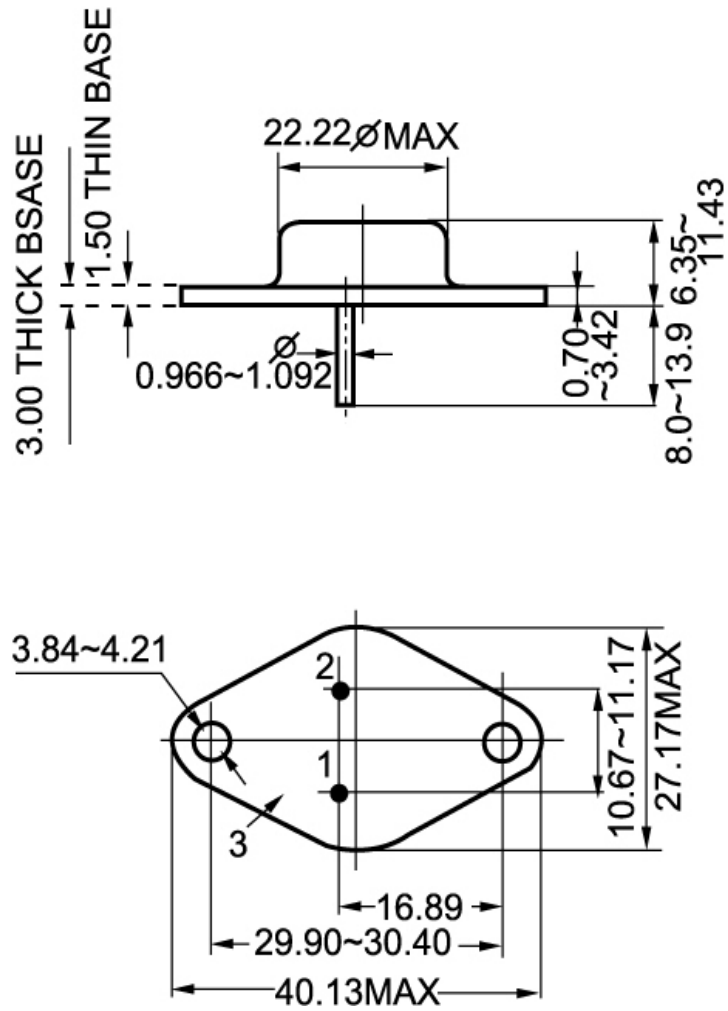


Fig.2 Outline dimensions