

## Silicon PNP Power Transistors

## BDX18

## DESCRIPTION

- With TO-3 package
- High switching speed

## APPLICATIONS

- LF large signal power amplification
- Suitable for series and shunt regulators, high fidelity amplifiers and power switching circuits

## PINNING (See Fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

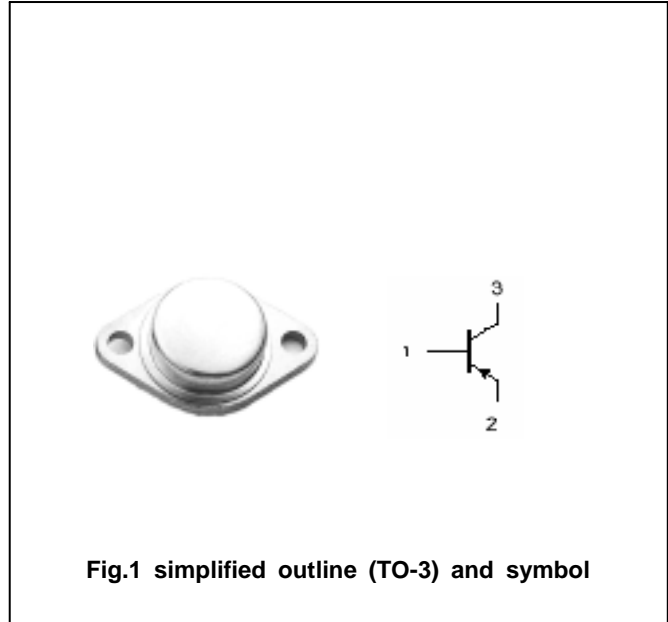


Fig.1 simplified outline (TO-3) and symbol

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	-60	V
$V_{EBO}$	Emitter-base voltage	Open collector	-7	V
$I_C$	Collector current		-15	A
$I_B$	Base current		-7	A
$P_T$	Total power dissipation	$T_C=25$	117	W
$T_j$	Junction temperature		-65~200	
$T_{stg}$	Storage temperature		-65~200	

## THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal resistance from junction to case	1.5	/W

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## CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>CEQ(SUS)</sub>	Collector-emitter sustaining voltage	I <sub>C</sub> =-0.2A ; I <sub>B</sub> =0	-60			V
V <sub>(BR) EBO</sub>	Emitter-base breakdown voltage	I <sub>E</sub> =-1mA ; I <sub>C</sub> =0	-7			V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =-4A ; I <sub>B</sub> =-0.4A			-1.1	V
V <sub>BE</sub>	Base-emitter voltage	I <sub>C</sub> =-4A ; V <sub>CE</sub> =-4V			-1.8	V
I <sub>CEX</sub>	Collector cut-off current	V <sub>CE</sub> =-90V ; V <sub>BE</sub> =1.5V V <sub>CE</sub> =-60V ; V <sub>BE</sub> =1.5V ; T <sub>C</sub> =150			-5 -10	mA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =-7V ; I <sub>C</sub> =0			-5	mA
h <sub>FE</sub>	DC current gain	I <sub>C</sub> =-4A ; V <sub>CE</sub> =-4V	20		70	
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =-1A ; V <sub>CE</sub> =-10V ; f=1MHz		4		MHz

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PACKAGE OUTLINE

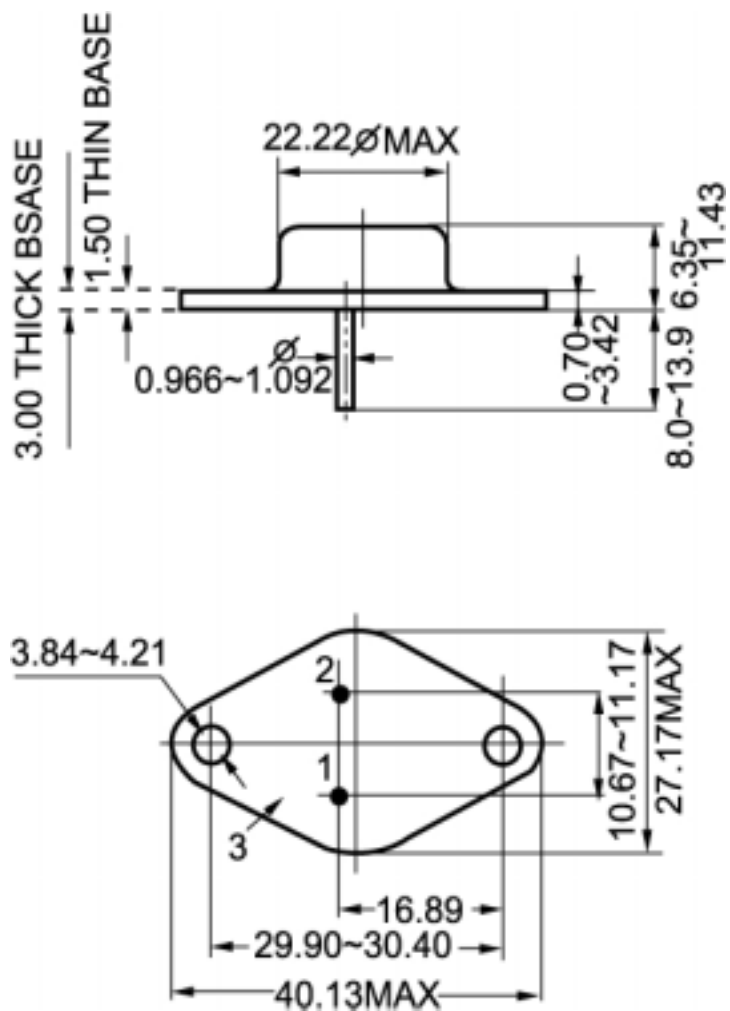


Fig.2 Outline dimensions