

Silicon NPN Power Transistors

BDY56

DESCRIPTION

- With TO-3 package
- High current capability
- Fast switching speed

APPLICATIONS

- LF large signal power amplification.

PINNING (See Fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

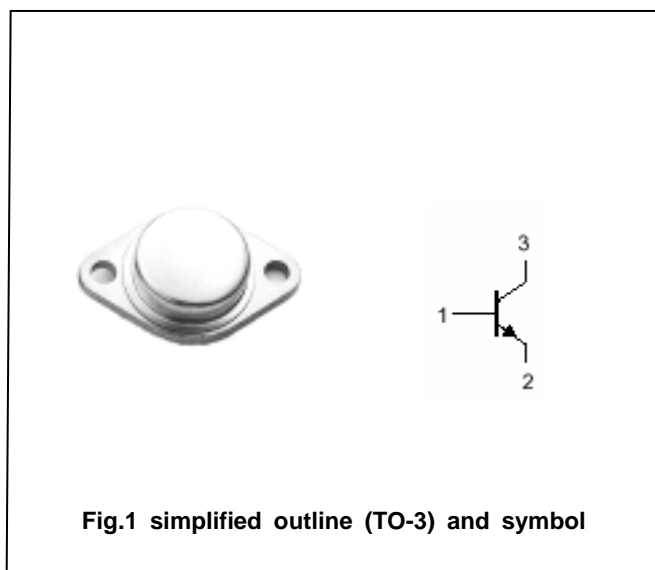


Fig.1 simplified outline (TO-3) and symbol

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

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	150	V
V_{CEO}	Collector-emitter voltage	Open base	120	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		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_j=25 unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEQ(SUS)}	Collector-emitter sustaining voltage	I _C =0.2A ; I _B =0	120			V
V _{CEsat-1}	Collector-emitter saturation voltage	I _C =4A ; I _B =0.4A			1.1	V
V _{CEsat-2}	Collector-emitter saturation voltage	I _C =10A ; I _B =3.3A			2.5	V
V _{BE}	Base-emitter on voltage	I _C =4 A ; V _{CE} =4V			1.8	V
I _{CEx}	Collector cut-off current	V _{CE} =150V ; V _{BE} =-1.5V T _C =150			3.0 30	mA
I _{CEO}	Collector cut-off current	V _{CE} =60V ; I _B =0			0.5	mA
I _{EBO}	Emitter cut-off current	V _{EB} =7V ; I _C =0			3.0	mA
h _{FE-1}	DC current gain	I _C =4A ; V _{CE} =4V	20		70	
h _{FE-2}	DC current gain	I _C =10A ; V _{CE} =4V	10			
f _T	Transition frequency	I _C =10A ; V _{CE} =4V	10			MHz

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PACKAGE OUTLINE

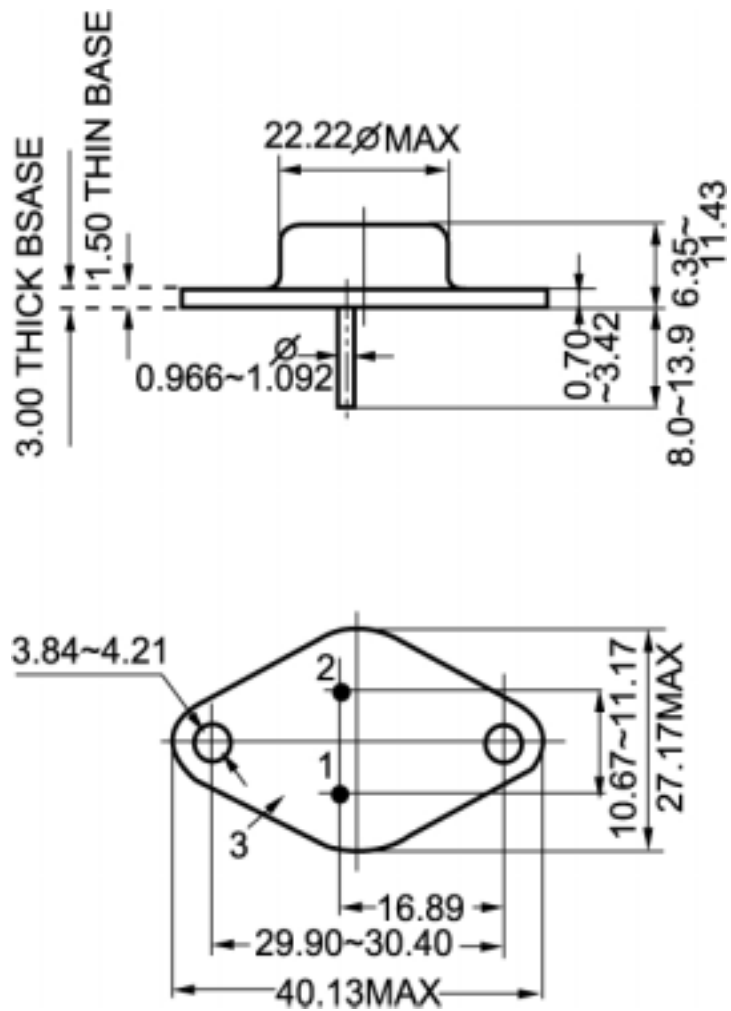


Fig.2 Outline dimensions