

Silicon NPN Power Transistors

BDY57 BDY58

DESCRIPTION

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

APPLICATIONS

- For use in low frequency large signal power amplifications

PINNING (See Fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

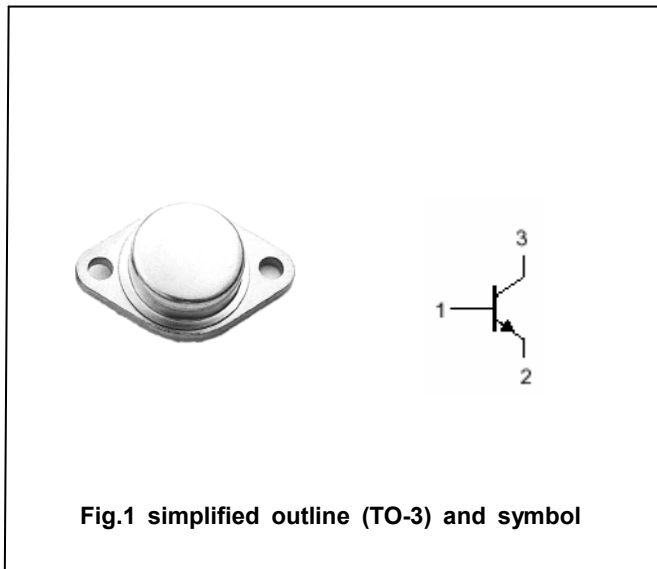


Fig.1 simplified outline (TO-3) and symbol

Absolute maximum ratings(Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	BDY57	120	V
		BDY58	160	
V _{CEO}	Collector-emitter voltage	BDY57	80	V
		BDY58	125	
V _{EBO}	Emitter-base voltage	Open collector	10	V
I _C	Collector current		25	A
I _B	Base current		6	A
P _T	Total power dissipation	T _C =25°C	175	W
T _j	Junction temperature		200	°C
T _{stg}	Storage temperature		-65~200	°C

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal resistance from junction to case	1.0	°C/W

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CHARACTERISTICS

T_j=25 °C unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO(SUS)}	Collector-emitter sustaining voltage	BDY57	I _C =0.1A ; I _B =0	80			V
		BDY58		125			
V _{(BR)CBO}	Collector-emitter breakdown voltage	BDY57	I _C =5mA ; I _E =0	120			V
		BDY58		160			
V _{CEsat}	Collector-emitter saturation voltage		I _C =10A ; I _B =1A			1.4	V
V _{BEsat}	Base-emitter saturation voltage		I _C =10A ; I _B =1A			1.4	V
I _{CBO}	Collector cut-off current		V _{CB} =100V ; I _E =0			0.5	mA
I _{CER}	Collector cut-off current		V _{CE} =80V ; R _{BE} =10Ω ; T _C =100 °C			10	mA
I _{EBO}	Emitter cut-off current		V _{EB} =10V ; I _C =0			0.5	mA
h _{FE-1}	DC current gain		I _C =10A ; V _{CE} =4V	20		60	
h _{FE-2}	DC current gain		I _C =20A ; V _{CE} =4V		15		
f _T	Transition frequency		I _C =1A ; V _{CE} =15V, f=10MHz	10			MHz
t _{on}	Turn-on time		I _C =15A ; I _B =1.5A			1.0	μs

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PACKAGE OUTLINE

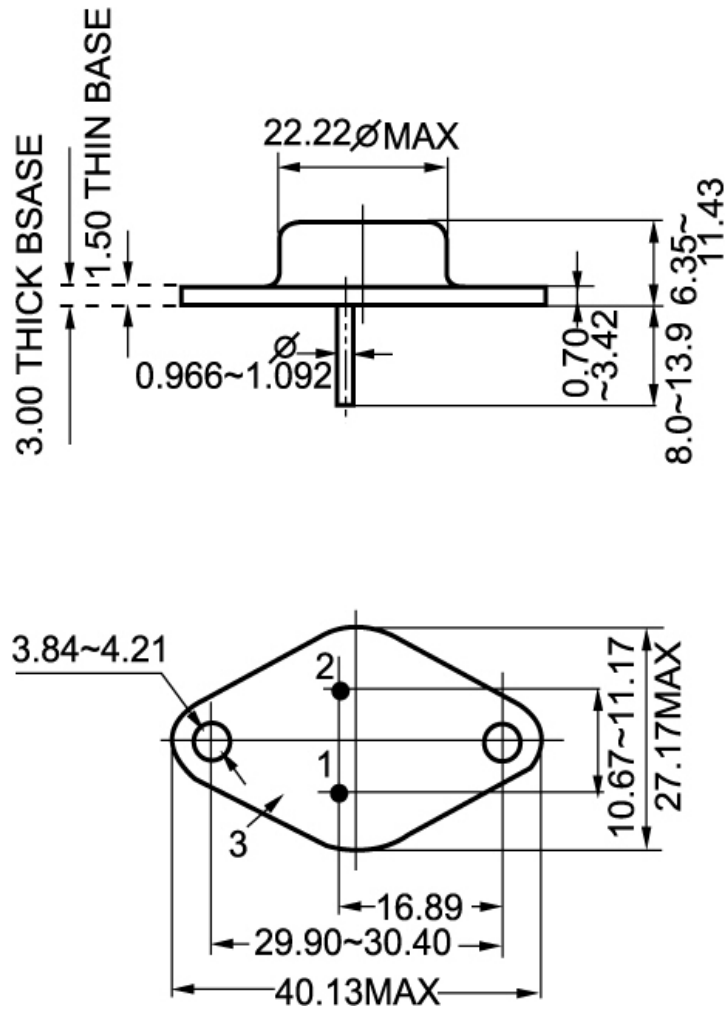


Fig.2 Outline dimensions