

Silicon PNP Power Transistors

2N6436 2N6437 2N6438

DESCRIPTION

- With TO-3 package
- High DC current gain
- Fast switching times
- Low collector saturation voltage
- Complement to type 2N6338~2N6341

APPLICATIONS

- For use in industrial-military power amplifier and switching circuit applications

PINNING(see Fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

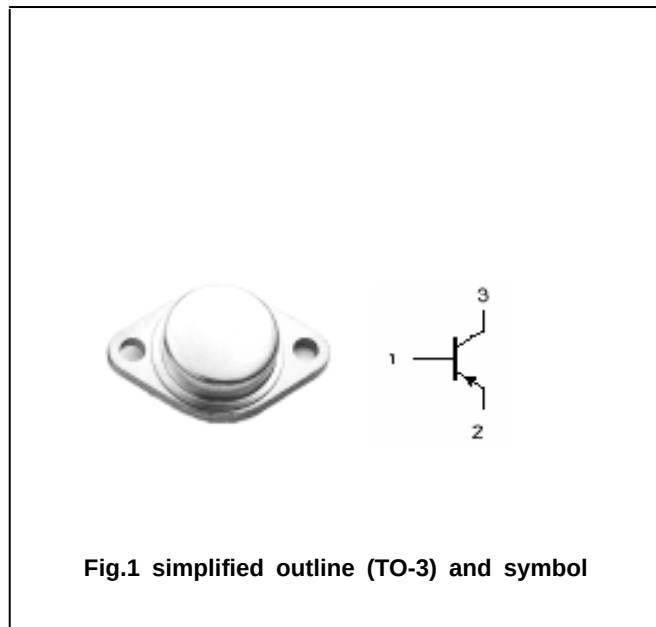


Fig.1 simplified outline (TO-3) and symbol

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

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	2N6436	Open emitter	-100	V
		2N6437		-120	
		2N6438		-140	
V_{CEO}	Collector-emitter voltage	2N6436	Open base	-80	V
		2N6437		-100	
		2N6438		-120	
V_{EBO}	Emitter-base voltage		Open collector	-6	V
I_C	Collector current			-25	A
I_{CM}	Collector current-peak			-50	A
I_{BC}	Base current			-10	A
P_D	Total power dissipation		$T_C = 25^\circ\text{C}$	200	W
T_j	Junction temperature			200	$^\circ\text{C}$
T_{stg}	Storage temperature			-65~200	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
$R_{th\ j-c}$	Thermal resistance junction to case	0.875	$^\circ\text{C/W}$

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CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(SUS)CEO}	Collector-emitter sustaining voltage	2N6436	I _C =-50mA ; I _B =0	-80			V
		2N6437		-100			
		2N6438		-120			
V _{CEsat-1}	Collector-emitter saturation voltage		I _C =-10A; I _B =-1.0A			-1.0	V
V _{CEsat-2}	Collector-emitter saturation voltage		I _C =-25A; I _B =-2.5A			-1.8	V
V _{BE sat-1}	Base-emitter saturation voltage		I _C =-10A; I _B =-1.0A			-1.8	V
V _{BE sat-2}	Base-emitter saturation voltage		I _C =-25A; I _B =-2.5A			-2.5	V
I _{CEX}	Collector cut-off current		V _{CE} =Rated V _{CEO} ; V _{EB} =-1.5V T _C =150°C			-10 -1.0	μ A mA
I _{CBO}	Collector cut-off current		V _{CB} =Rated V _{CB} ; I _E =0			-10	μ A
I _{CEO}	Collector cut-off current	2N6436	V _{CE} = -40V, I _B =0			-50	μ A
		2N6437	V _{CE} =- 50V, I _B =0				
		2N6438	V _{CE} = -60V, I _B =0				
I _{EBO}	Emitter cut-off current		V _{EB} =-6V; I _C =0			-100	μ A
h _{FE-1}	DC current gain		I _C =-0.5A ; V _{CE} =-2V	30			
h _{FE-2}	DC current gain		I _C =-10A ; V _{CE} =-2V	20		120	
h _{FE-3}	DC current gain		I _C =-25A ; V _{CE} =-2V	12			
C _{OB}	Output capacitance		I _E =0 ; V _{CB} =-10V; f=1MHz			700	pF
f _T	Transition frequency		I _C =-1A ; V _{CE} =-10V; f=10MHz	40			MHz

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PACKAGE OUTLINE

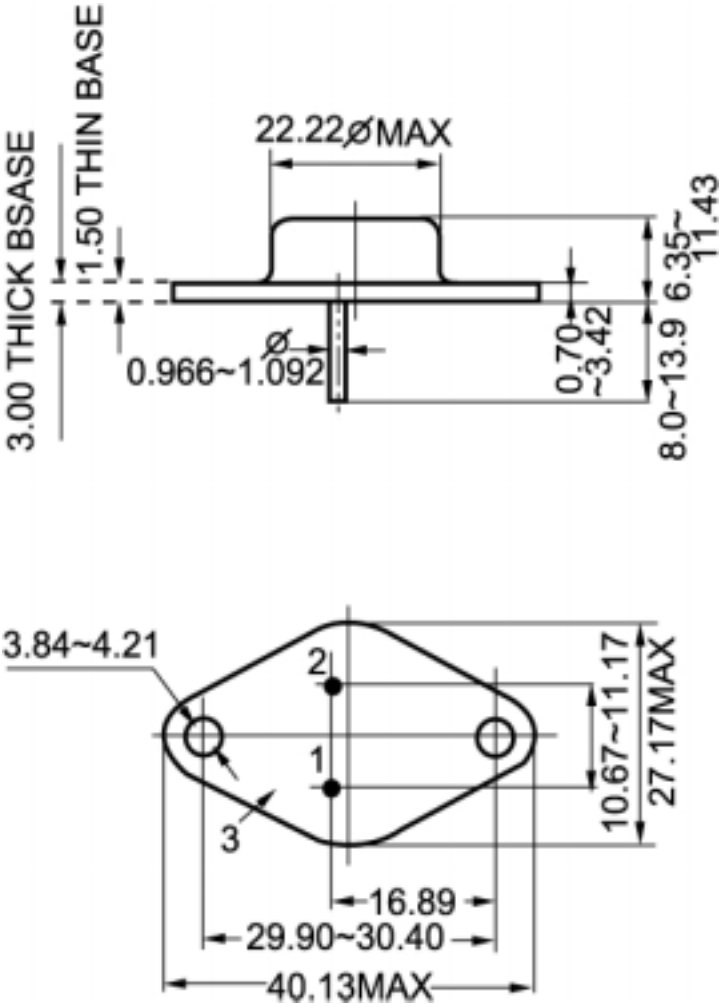


Fig.2 outline dimensions