

Silicon PNP Power Transistors

2N6029 2N6030

DESCRIPTION

- With TO-3 package
- Complement to type 2N5629 2N5630

APPLICATIONS

- For high voltage and high power amplifier applications

PINNING

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

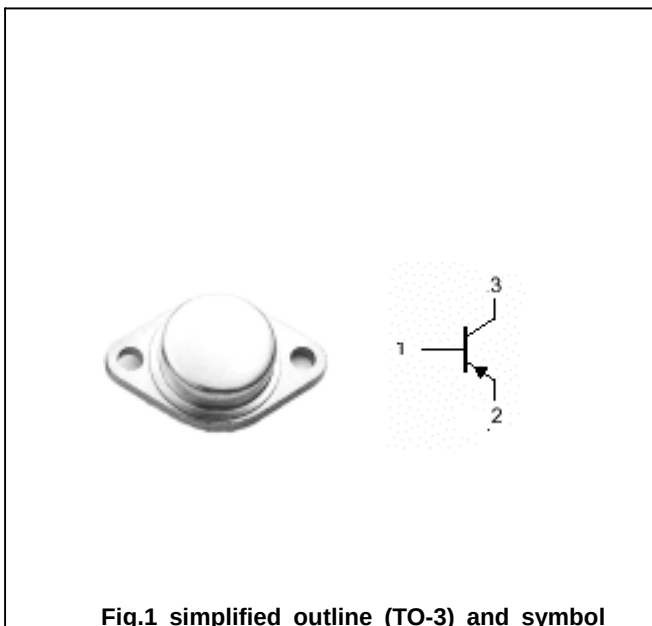


Fig.1 simplified outline (TO-3) and symbol

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

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	2N6029	Open emitter	100	V
		2N6030		120	
V_{CEO}	Collector-emitter voltage	2N6029	Open base	100	V
		2N6030		120	
V_{EBO}	Emitter-base voltage		Open collector	7	V
I_C	Collector current			16	A
I_{CM}	Collector current-peak			20	A
I_B	Base current			5.0	A
P_D	Total Power Dissipation		$T_c = 25^\circ\text{C}$	200	W
T_j	Junction temperature			150	$^\circ\text{C}$
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 _{CEO(sus)}	Collector-emitter sustaining voltage	2N6029	I _C =0.2A ; I _B =0	100			V
		2N6030		120			
V _{CEsat-1}	Collector-emitter saturation voltage		I _C =10A; I _B =1A			1.0	V
V _{CEsat-2}	Collector-emitter saturation voltage		I _C =16A ; I _B =4A			2.0	V
V _{BEsat}	Collector-emitter saturation voltage		I _C =10A; I _B =1A			1.8	V
V _{BE}	Base-emitter on voltage		I _C =8A ; V _{CE} =2V			1.5	V
I _{CBO}	Collector cut-off current		V _{CB} =ratedV _{CB} ; I _E =0			1.0	mA
I _{CEO}	Collector cut-off current	2N6029	V _{CE} =50V; I _B =0			1.0	mA
		2N6030	V _{CE} =60V; I _B =0				
I _{CEV}	Collector cut-off current (V _{BE(off)} =1.5V)		V _{CE} =ratedV _{CB}			1.0	mA
			V _{CE} =ratedV _{CB} ; T _C =150°C			5.0	
I _{EBO}	Emitter cut-off current		V _{EB} =7V; I _C =0			1.0	mA
h _{FE-1}	DC current gain	2N6029	I _C =8A ; V _{CE} =2V	25		100	
		2N6030		20		80	
h _{FE-2}	DC current gain		I _C =16A ; V _{CE} =2V	4			
C _{OB}	Output capacitance		I _E =0 ; V _{CB} =10V ; f=0.1MHz			1000	pF
f _T	Transition frequency		I _C =1A ; V _{CE} =20V	1.0			MHz

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PACKAGE OUTLINE

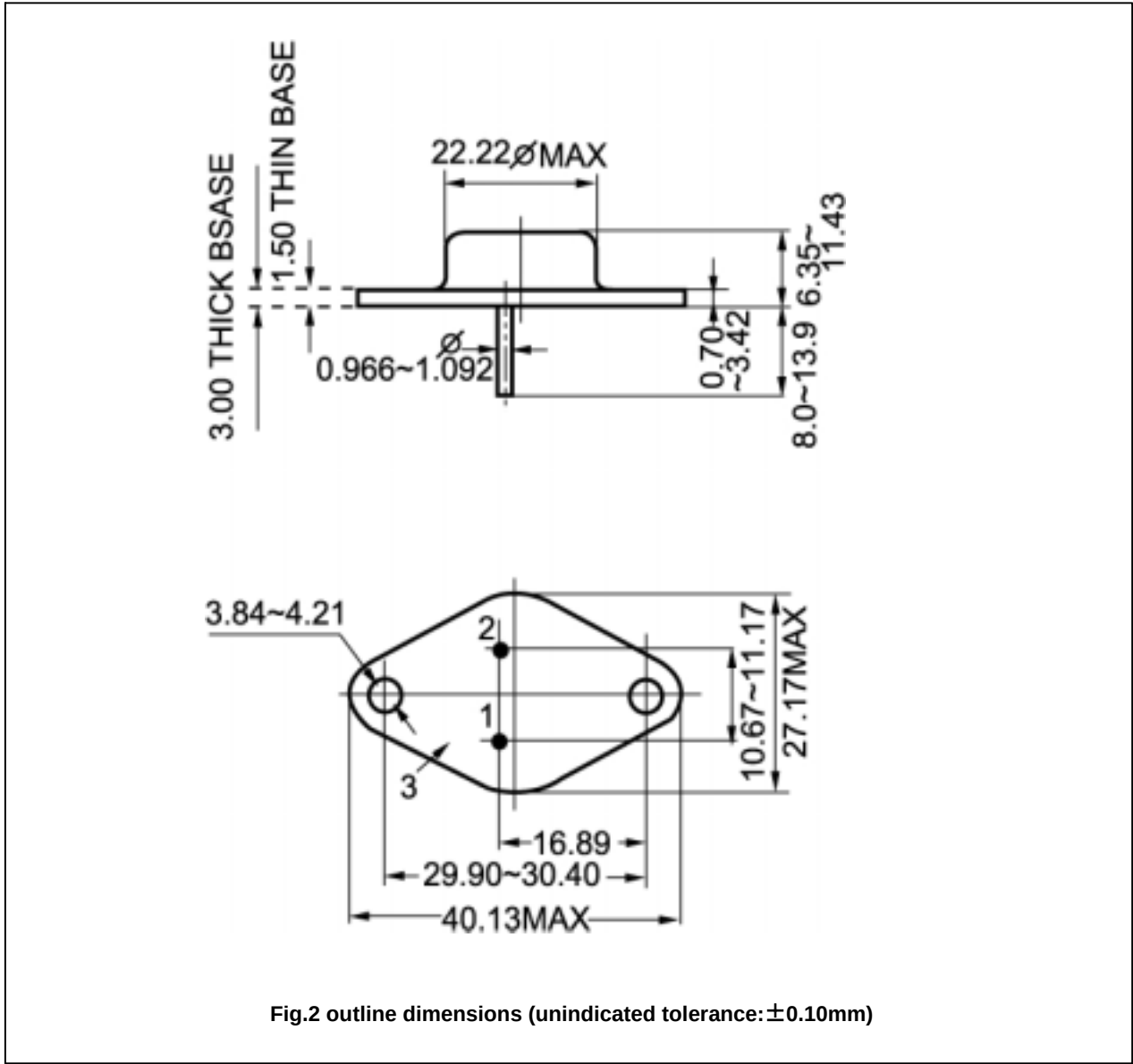


Fig.2 outline dimensions (unindicated tolerance: ±0.10mm)