

## Silicon PNP Power Transistors

## 2N5879 2N5880

## DESCRIPTION

- With TO-3 package
- Low collector saturation voltage
- Complement to type 2N5881 2N5882

## APPLICATIONS

- For general-purpose power amplifier and switching applications

## PINNING

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

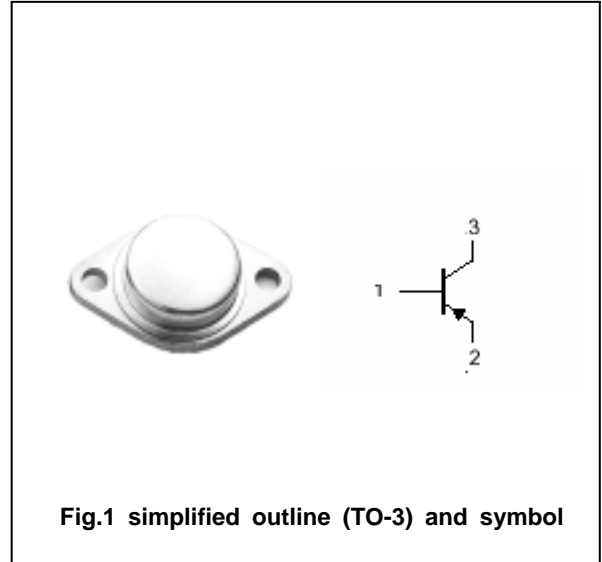


Fig.1 simplified outline (TO-3) and symbol

## Absolute maximum ratings(Ta= )

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	2N5879	-60	V
		2N5880	-80	
V <sub>CEO</sub>	Collector-emitter voltage	2N5879	-60	V
		2N5880	-80	
V <sub>EBO</sub>	Emitter-base voltage	Open collector	-5	V
I <sub>C</sub>	Collector current		-15	A
I <sub>CM</sub>	Collector current-peak		-30	A
I <sub>B</sub>	Base current		-5	A
P <sub>D</sub>	Total Power Dissipation	T <sub>C</sub> =25	160	W
T <sub>j</sub>	Junction temperature		150	
T <sub>stg</sub>	Storage temperature		-65~200	

## THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
R <sub>th j-c</sub>	Thermal resistance junction to case	1.1	/W

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## CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>CE0(SUS)</sub>	Collector-emitter sustaining voltage	2N5879	I <sub>C</sub> =-0.2A ; I <sub>B</sub> =0			V
		2N5880				
V <sub>CEsat-1</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =-7A; I <sub>B</sub> =-0.7A			-1.0	V
V <sub>CEsat-2</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =-15A; I <sub>B</sub> =-3.75A			-4.0	V
V <sub>BEsat</sub>	Base-emitter saturation voltage	I <sub>C</sub> =-15A; I <sub>B</sub> =-3.75A			-2.5	V
V <sub>BE</sub>	Base-emitter on voltage	I <sub>C</sub> =-6A ; V <sub>CE</sub> =-4V			-1.5	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =ratedV <sub>CBO</sub> ; I <sub>B</sub> =0			-0.5	mA
I <sub>CEO</sub>	Collector cut-off current	2N5879				mA
		2N5880				
I <sub>CEx</sub>	Collector cut-off current	V <sub>CE</sub> =ratedV <sub>CE</sub> ; V <sub>BE</sub> =-1.5V T <sub>C</sub> =150			-0.5 -5.0	mA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =-5V; I <sub>C</sub> =0			-1.0	mA
h <sub>FE-1</sub>	DC current gain	I <sub>C</sub> =-2A ; V <sub>CE</sub> =-4V	35			
h <sub>FE-2</sub>	DC current gain	I <sub>C</sub> =-6A ; V <sub>CE</sub> =-4V	20		100	
h <sub>FE-3</sub>	DC current gain	I <sub>C</sub> =-15A ; V <sub>CE</sub> =-4V	4			
f <sub>T</sub>	Transistion frequency	I <sub>C</sub> =-1A ; V <sub>CE</sub> =-10V	4			MHz

PACKAGE OUTLINE

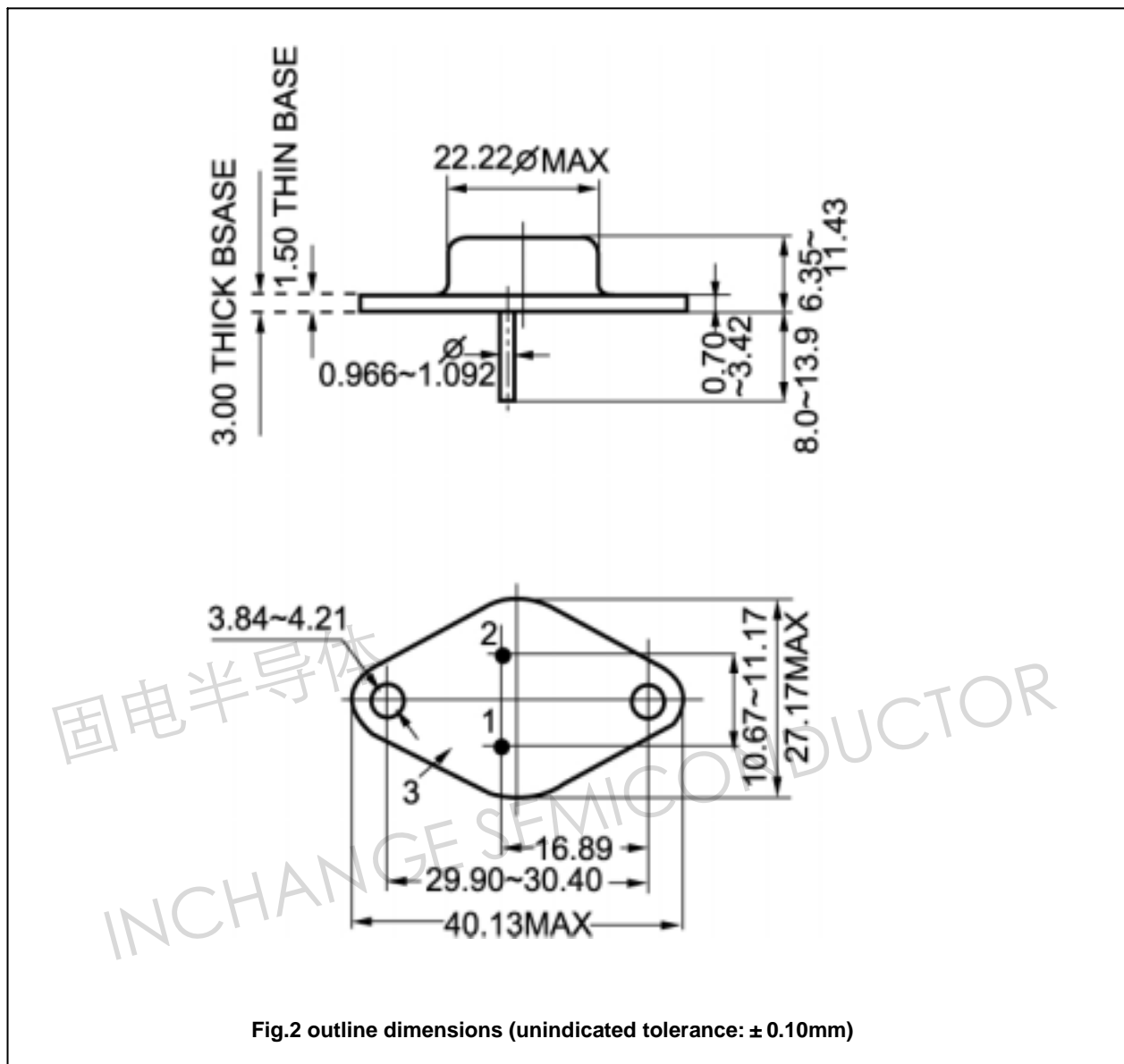


Fig.2 outline dimensions (unindicated tolerance: ± 0.10mm)