

## Silicon PNP Power Transistors

## 2N6246 2N6247 2N6248

## DESCRIPTION

- With TO-3 package
- Low collector saturation voltage
- Excellent safe operating area
- High gain at high current

## APPLICATIONS

- General-purpose types of switching and linear-amplifier applications

## PINNING

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

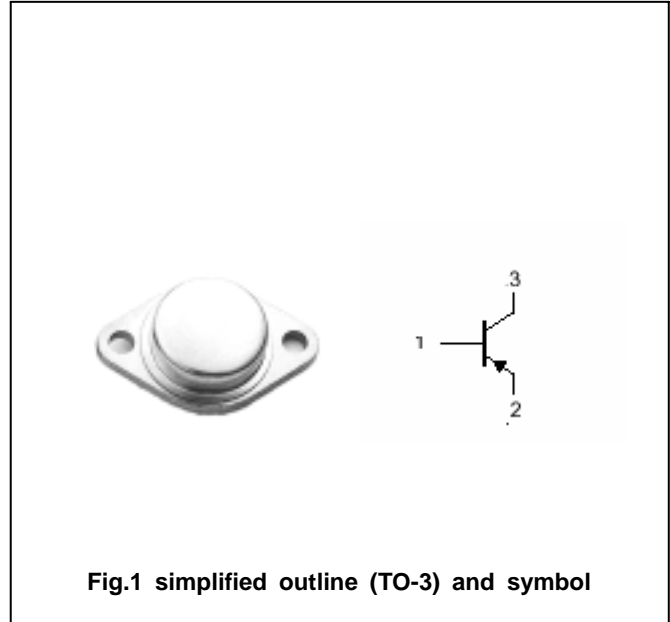


Fig.1 simplified outline (TO-3) and symbol

Absolute maximum ratings( $T_a = -$ )

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$V_{CBO}$	Collector-base voltage	2N6246	-70	V
		2N6247	-90	
		2N6248	-110	
$V_{CEO}$	Collector-emitter voltage	2N6246	-60	V
		2N6247	-80	
		2N6248	-100	
$V_{EBO}$	Emitter-base voltage	Open collector	-5	V
$I_C$	Collector current		-15	A
$I_B$	Base current		-5	A
$P_T$	Total power dissipation	$T_C=25$	125	W
$T_j$	Junction temperature		150	
$T_{stg}$	Storage temperature		-65~200	

## THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
$R_{th\ j-c}$	Thermal resistance junction to case	1.4	/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	2N6246	I <sub>C</sub> =-0.2A ; I <sub>B</sub> =0			-60	
		2N6247				-80	
		2N6248				-100	
V <sub>CEsat-1</sub>	Collector-emitter saturation voltage	2N6246	I <sub>C</sub> =-7A; I <sub>B</sub> =-0.7A			-1.3	
		2N6247	I <sub>C</sub> =-6A; I <sub>B</sub> =-0.6A				
		2N6248	I <sub>C</sub> =-5A; I <sub>B</sub> =-0.5A				
V <sub>CEsat-2</sub>	Collector-emitter saturation voltage	2N6246	I <sub>C</sub> =-15A; I <sub>B</sub> =-3A			-2.5	
		2N6247	I <sub>C</sub> =-15A; I <sub>B</sub> =-4A			-3.5	
		2N6248	I <sub>C</sub> =-10A; I <sub>B</sub> =-2A				
V <sub>BE</sub>	Base-emitter on voltage	2N6246	I <sub>C</sub> =-7A ; V <sub>CE</sub> =-4V			-2.0	
		2N6247	I <sub>C</sub> =-6A ; V <sub>CE</sub> =-4V			-1.8	
		2N6248	I <sub>C</sub> =-5A ; V <sub>CE</sub> =-4V			-1.8	
I <sub>CEO</sub>	Collector cut-off current	V <sub>CE</sub> =1/2Rated V <sub>CE0</sub> ; I <sub>B</sub> =0				-1.0	mA
I <sub>CEX</sub>	Collector cut-off current	2N6246	V <sub>CE</sub> =-65V; V <sub>BE</sub> =-1.5V V <sub>CE</sub> =-55V; V <sub>BE</sub> =-1.5V T <sub>C</sub> =150			-0.2	
		2N6247	V <sub>CE</sub> =-85V; V <sub>BE</sub> =-1.5V V <sub>CE</sub> =-70V; V <sub>BE</sub> =-1.5V T <sub>C</sub> =150			-5.0	
		2N6248	V <sub>CE</sub> =-100V; V <sub>BE</sub> =-1.5V V <sub>CE</sub> =-90V; V <sub>BE</sub> =-1.5V T <sub>C</sub> =150			-0.2	
I <sub>EBO</sub>	Emitter cut-off current	2N6246	V <sub>EB</sub> =-5V; I <sub>C</sub> =0			-5.0	
		2N6247				-1.0	
		2N6248					
h <sub>FE-1</sub>	DC current gain	2N6246	I <sub>C</sub> =-7A ; V <sub>CE</sub> =-4V	20		100	
		2N6247	I <sub>C</sub> =-6A ; V <sub>CE</sub> =-4V				
		2N6248	I <sub>C</sub> =-5A ; V <sub>CE</sub> =-4V				
h <sub>FE-2</sub>	DC current gain	2N6246	I <sub>C</sub> =-15A ; V <sub>CE</sub> =-4V	5			
		2N6247	I <sub>C</sub> =-15A ; V <sub>CE</sub> =-4V				
		2N6248	I <sub>C</sub> =-10A ; V <sub>CE</sub> =-4V				

PACKAGE OUTLINE

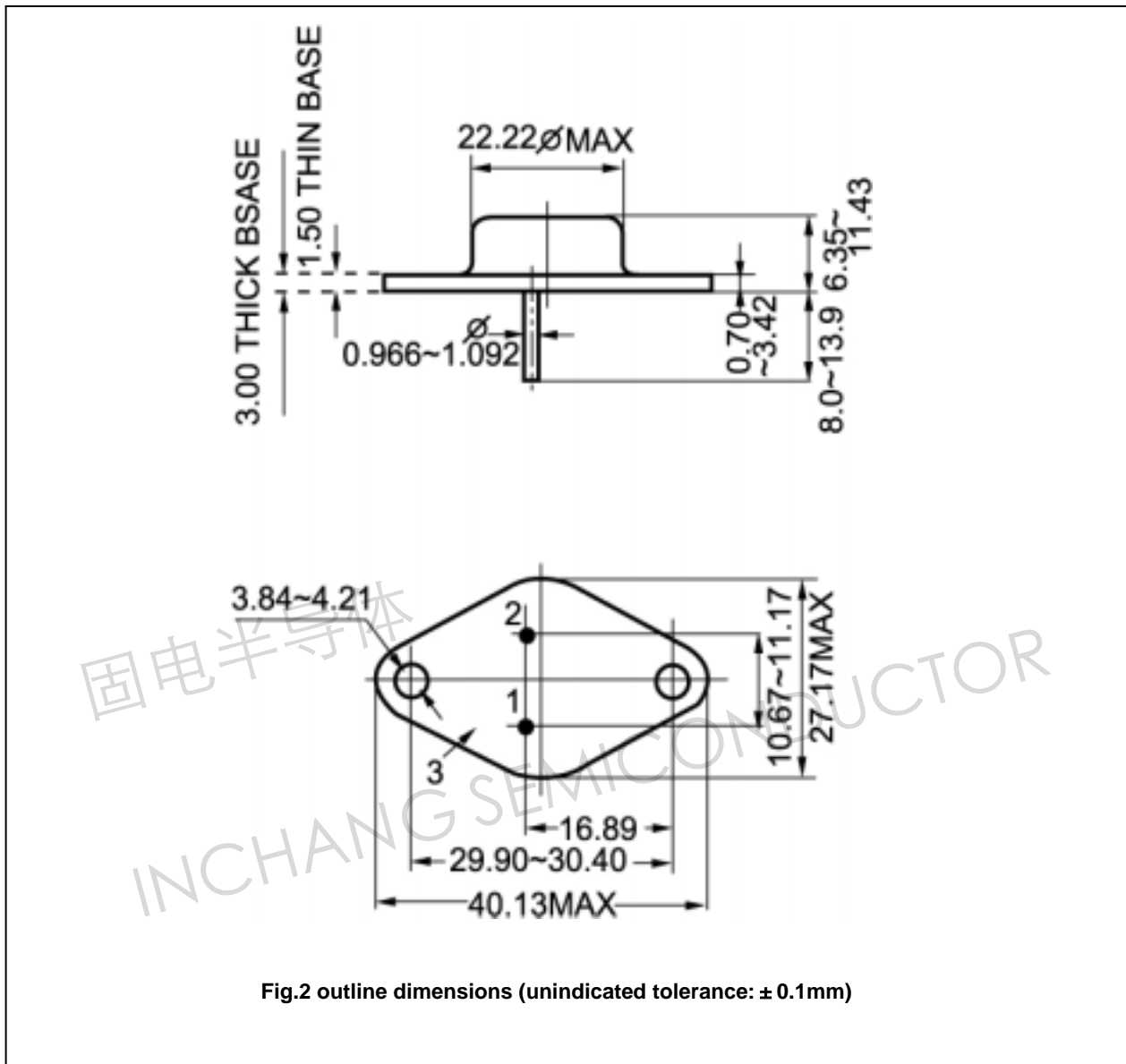


Fig.2 outline dimensions (unindicated tolerance:  $\pm 0.1\text{mm}$ )