

**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

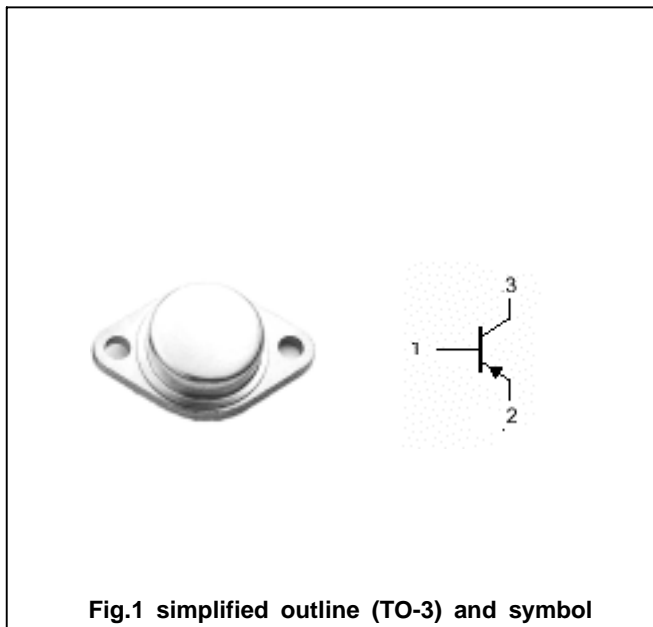


Fig.1 simplified outline (TO-3) and symbol

**Absolute maximum ratings(Ta= )**

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	2N6246	70	V
		2N6247	90	
		2N6248	110	
V <sub>CEO</sub>	Collector-emitter voltage	2N6246	60	V
		2N6247	80	
		2N6248	100	
V <sub>EBO</sub>	Emitter-base voltage	Open collector	5	V
I <sub>C</sub>	Collector current		15	A
I <sub>B</sub>	Base current		5	A
P <sub>T</sub>	Total power dissipation	T <sub>C</sub> =25	125	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	1.4	/W

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## CHARACTERISTICS

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

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>CEO</sub>	Collector-emitter sustaining voltage	2N6246	I <sub>C</sub> =0.2A ; I <sub>B</sub> =0	60			V
		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	V
		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	V
		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	V
		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>CEO</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 5.0	mA
		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			0.2 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 5.0	
I <sub>EBO</sub>	Emitter cut-off current	2N6246	V <sub>EB</sub> =5V; I <sub>C</sub> =0			5.0	mA
		2N6247/6248		1.0			
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				

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PACKAGE OUTLINE

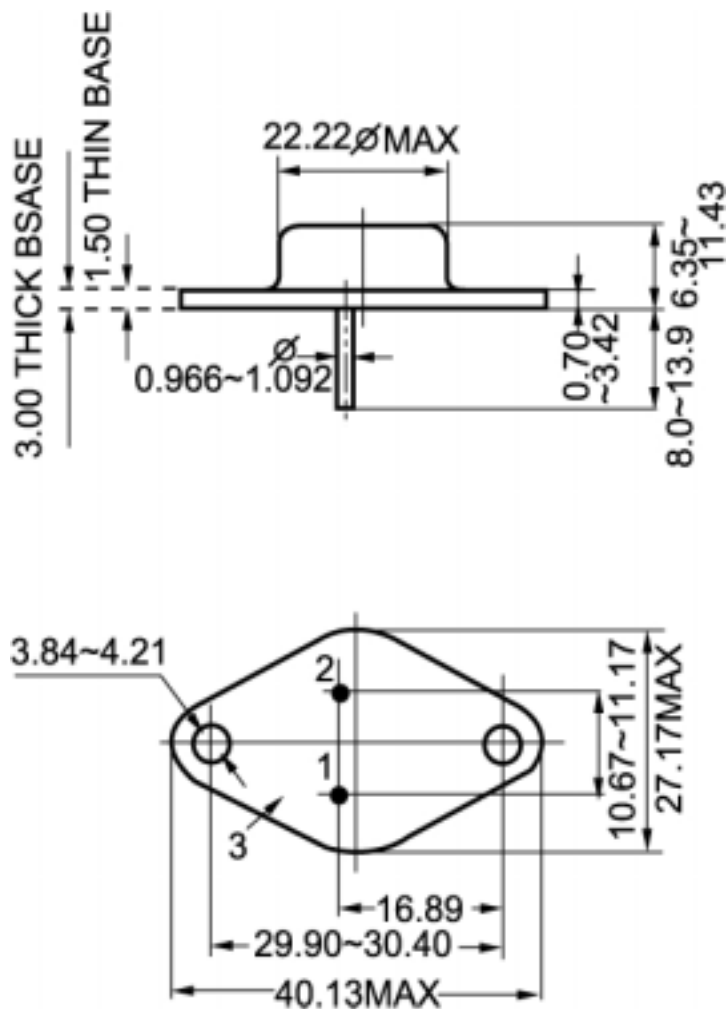


Fig.2 outline dimensions (unindicated tolerance:  $\pm 0.1\text{mm}$ )