

**Silicon PNP Power Transistors**

**2N6229 2N6230 2N6231**

**DESCRIPTION**

- With TO-3 package
- Low collector saturation voltage
- Excellent safe operating area

**APPLICATIONS**

- For high power audio; disk head positioners and other linear applications.

**PINNING**

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

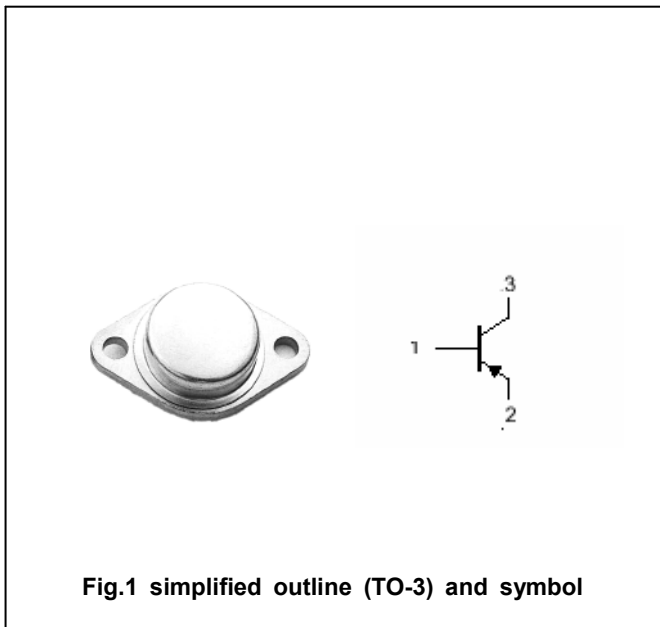


Fig.1 simplified outline (TO-3) and symbol

**Absolute maximum ratings(Ta=□)**

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	2N6229	-100	V
		2N6230	-120	
		2N6231	-140	
V <sub>CEO</sub>	Collector-emitter voltage	2N6229	-100	V
		2N6230	-120	
		2N6231	-140	
V <sub>EBO</sub>	Emitter-base voltage	Open collector	-7	V
I <sub>C</sub>	Collector current		-10	A
P <sub>D</sub>	Total power dissipation	T <sub>C</sub> =25□	150	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	0.875	□/W

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## CHARACTERISTICS

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

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>CEO(SUS)</sub>	Collector-emitter sustaining voltage	2N6229	I <sub>C</sub> =-0.2A ; I <sub>B</sub> =0	-100			V
		2N6230		-120			
		2N6231		-140			
V <sub>CEsat</sub>	Collector-emitter saturation voltage		I <sub>C</sub> =-4A; I <sub>B</sub> =-0.4A			-1.0	V
V <sub>BE</sub>	Base-emitter on voltage		I <sub>C</sub> =-5A ; V <sub>CE</sub> =-2V			-2.0	V
I <sub>CEO</sub>	Collector cut-off current		V <sub>CE</sub> =Rated V <sub>CEO</sub> ; I <sub>B</sub> =0			-5.0	mA
I <sub>CBO</sub>	Collector cut-off current		V <sub>CB</sub> =Rated V <sub>CBO</sub> ; I <sub>E</sub> =0			-1.0	mA
I <sub>EBO</sub>	Emitter cut-off current		V <sub>EB</sub> =-7V; I <sub>C</sub> =0			-0.1	mA
h <sub>FE</sub>	DC current gain	2N6229	I <sub>C</sub> =-5A ; V <sub>CE</sub> =-2V	25		100	
		2N6230		20		80	
		2N6231		15		60	
f <sub>T</sub>	Transition frequency		I <sub>C</sub> =-0.5A ; V <sub>CE</sub> =-4V	1			MHz

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PACKAGE OUTLINE



Fig.2 outline dimensions (unindicated tolerance:±0.1mm)