

**Silicon NPN Power Transistors**

**2N6129 2N6130 2N6131**

**DESCRIPTION**

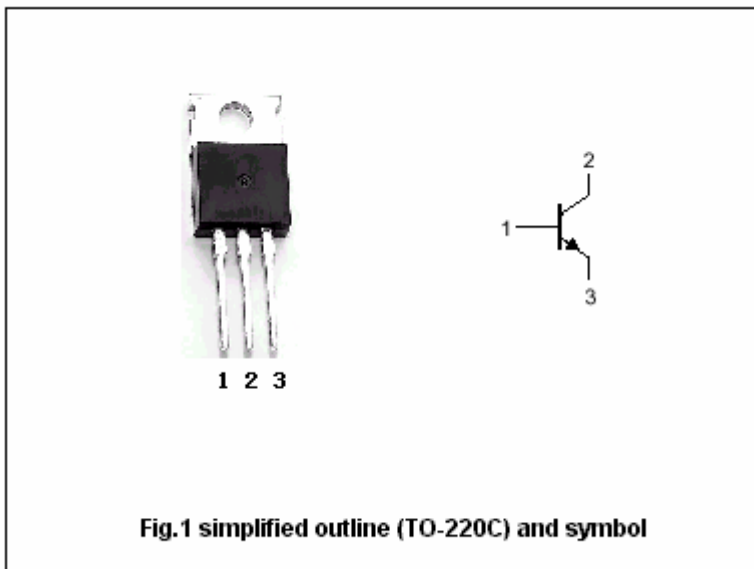
- With TO-220 package
- High power dissipation
- Complement to PNP type :  
2N6132 2N6133 2N6134

**APPLICATIONS**

- Power amplifier and medium speed switching applications

**PINNING**

PIN	DESCRIPTION
1	Base
2	Collector;connected to mounting base
3	Emitter



**Absolute maximum ratings(Ta=25°C)**

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	2N6129	40	V
		2N6130	60	
		2N6131	80	
V <sub>CEO</sub>	Collector-emitter voltage	2N6129	40	V
		2N6130	60	
		2N6131	80	
V <sub>EBO</sub>	Emitter-base voltage	Open collector	5	V
I <sub>C</sub>	Collector current		7	A
I <sub>B</sub>	Base current		3	A
P <sub>T</sub>	Total power dissipation	T <sub>C</sub> =25°C	50	W
T <sub>j</sub>	Junction temperature		150	°C
T <sub>stg</sub>	Storage temperature		-65~150	°C

**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
R <sub>th j-c</sub>	Thermal resistance from junction to case	2.5	°C/W

## Silicon NPN Power Transistors

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## CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>CEQ(SUS)</sub>	Collector-emitter sustaining voltage	2N6129	I <sub>C</sub> =0.1A ; I <sub>B</sub> =0			V
		2N6130				
		2N6131				
V <sub>CEsat</sub>	Collector-emitter saturation voltage	2N6129	I <sub>C</sub> =7A; I <sub>B</sub> =1.2A		1.4	V
		2N6130				
		2N6131				
V <sub>BE</sub>	Base-emitter on voltage	I <sub>C</sub> =2.5A ; V <sub>CE</sub> =4V			1.4	V
I <sub>CEV</sub>	Collector cut-off current	2N6129	V <sub>CE</sub> =40V; V <sub>BE</sub> =1.5V T <sub>C</sub> =150 °C			mA
		2N6130	V <sub>CE</sub> =60V; V <sub>BE</sub> =1.5V T <sub>C</sub> =150 °C			
		2N6131	V <sub>CE</sub> =80V; V <sub>BE</sub> =1.5V T <sub>C</sub> =150 °C			
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =5V; I <sub>C</sub> =0			1.0	mA
h <sub>FE</sub>	DC current gain	I <sub>C</sub> =2.5A ; V <sub>CE</sub> =4V	20		100	
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =0.2A ; V <sub>CE</sub> =4V	2.5			MHz

