

## Silicon NPN Power Transistors

## 2N6129 2N6130 2N6131

## DESCRIPTION

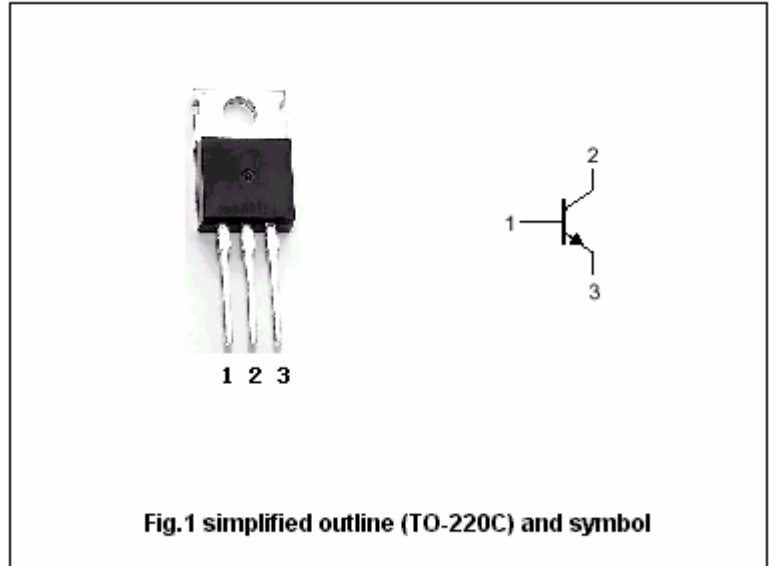
- With TO-220 package
- High power dissipation
- Complement to PNP type :  
2N6132 2N6133 2N6134

## APPLICATIONS

- Power amplifier and medium speed switching applications

## PINNING

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

Absolute maximum ratings( $T_a=25^\circ$ )

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$V_{CBO}$	Collector-base voltage	2N6129	40	V
		2N6130	60	
		2N6131	80	
$V_{CEO}$	Collector-emitter voltage	2N6129	40	V
		2N6130	60	
		2N6131	80	
$V_{EBO}$	Emitter-base voltage	Open collector	5	V
$I_C$	Collector current		7	A
$I_B$	Base current		3	A
$P_T$	Total power dissipation	$T_C=25^\circ$	50	W
$T_j$	Junction temperature		150	$^\circ$
$T_{stg}$	Storage temperature		-65~150	$^\circ$

## THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal resistance from junction to case	2.5	$^\circ/W$

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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

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PACKAGE OUTLINE

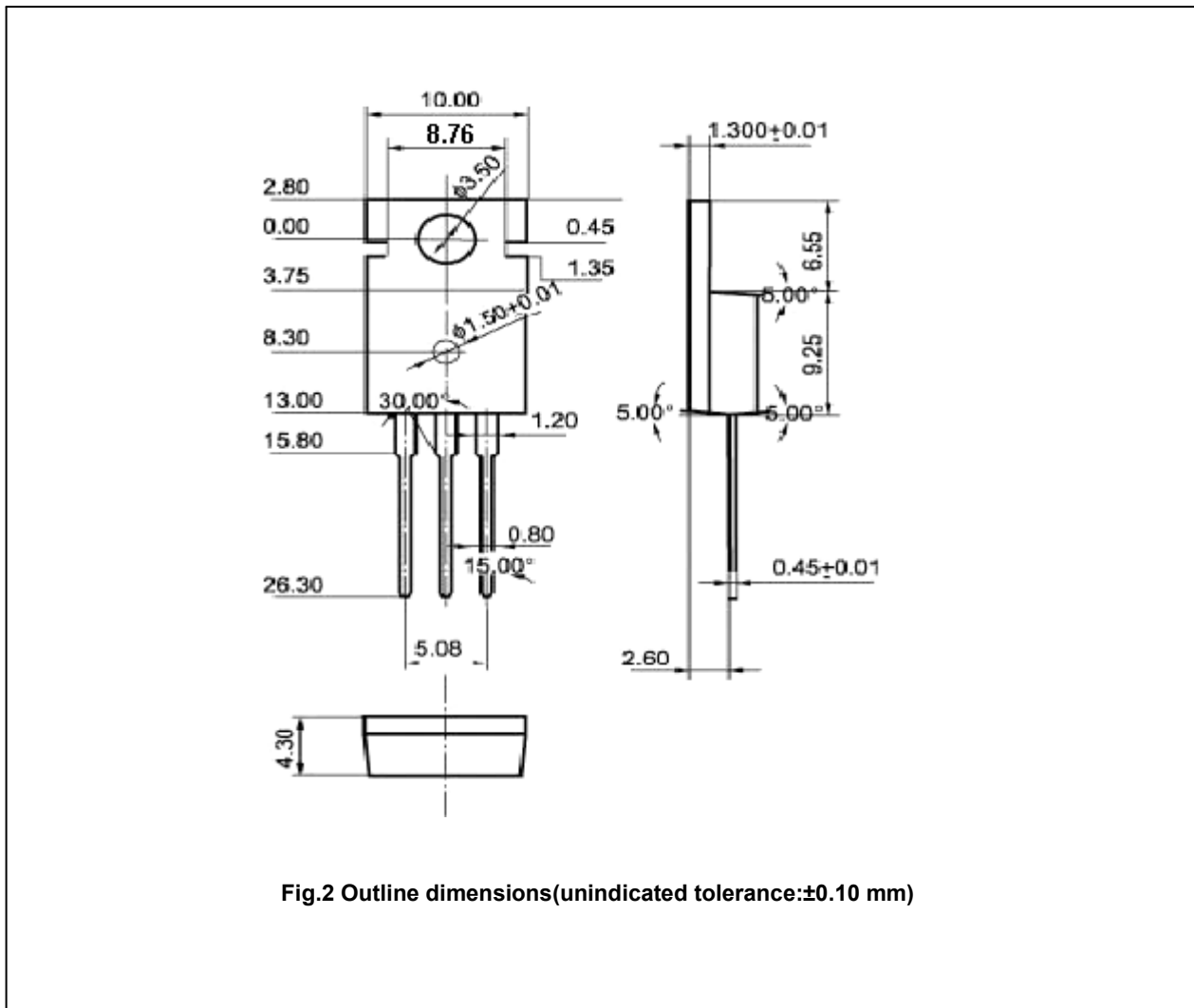


Fig.2 Outline dimensions(unindicated tolerance:±0.10 mm)