

Silicon NPN Power Transistors

2N6129 2N6130 2N6131

DESCRIPTION

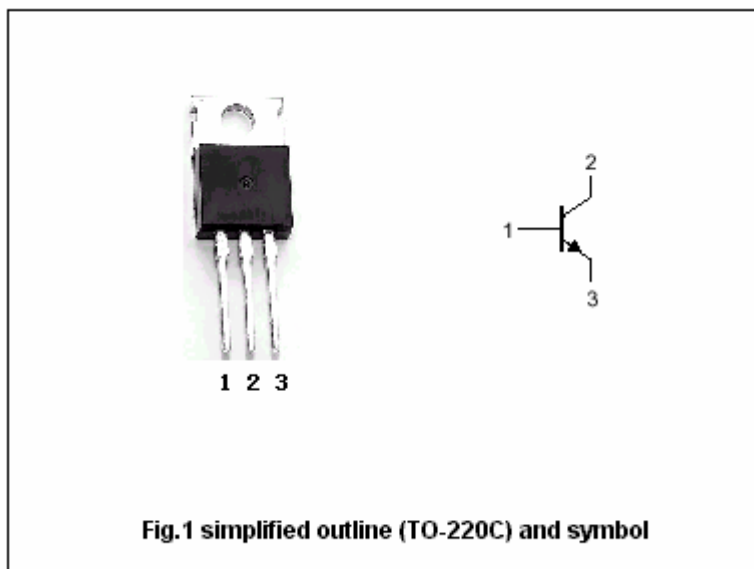
- With TO-220 package
- High power dissipation
- Complement to PNP type :
2N6132 2N6133 2N6134

APPLICATIONS

- Power amplifier and medium speed switching applications

PINNING

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

Absolute maximum ratings($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	2N6129	Open emitter	40	V
		2N6130		60	
		2N6131		80	
V_{CEO}	Collector-emitter voltage	2N6129	Open base	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		$T_C=25^\circ\text{C}$	50	W
T_j	Junction temperature			150	$^\circ\text{C}$
T_{stg}	Storage temperature			-65~150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

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

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CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEQ(SUS)}	Collector-emitter sustaining voltage	2N6129	I _C =0.1A ; I _B =0	40			V
		2N6130		60			
		2N6131		80			
V _{CEsat}	Collector-emitter saturation voltage	2N6129	I _C =7A; I _B =1.2A			1.4	V
		2N6130				1.8	
		2N6131					
V _{BE}	Base-emitter on voltage		I _C =2.5A ; V _{CE} =4V			1.4	V
I _{CEV}	Collector cut-off current	2N6129	V _{CE} =40V; V _{BE} =1.5V T _C =150□			0.5 3.0	mA
		2N6130	V _{CE} =60V; V _{BE} =1.5V T _C =150□			0.5 3.0	
		2N6131	V _{CE} =80V; V _{BE} =1.5V T _C =150□			0.5 3.0	mA
I _{EBO}	Emitter cut-off current		V _{EB} =5V; I _C =0			1.0	mA
h _{FE}	DC current gain		I _C =2.5A ; V _{CE} =4V	20		100	
f _T	Transition frequency		I _C =0.2A ; V _{CE} =4V	2.5			MHz

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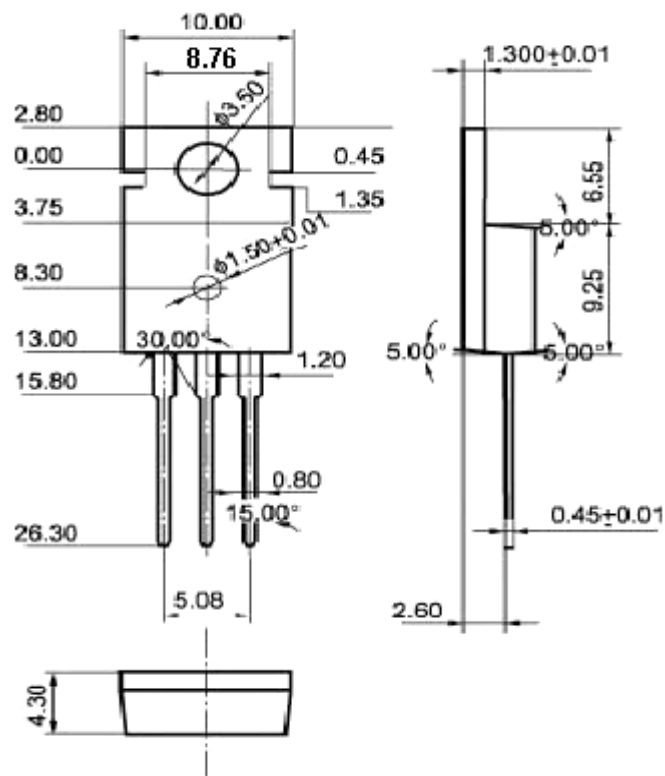


Fig.2 Outline dimensions(unindicated tolerance:±0.10 mm)