

Silicon NPN Power Transistors 2N6098 2N6099 2N6100 2N6101

DESCRIPTION

- With TO-220 package
- High current capability

APPLICATIONS

- For use in general-purpose amplifier and switching applications

PINNING

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

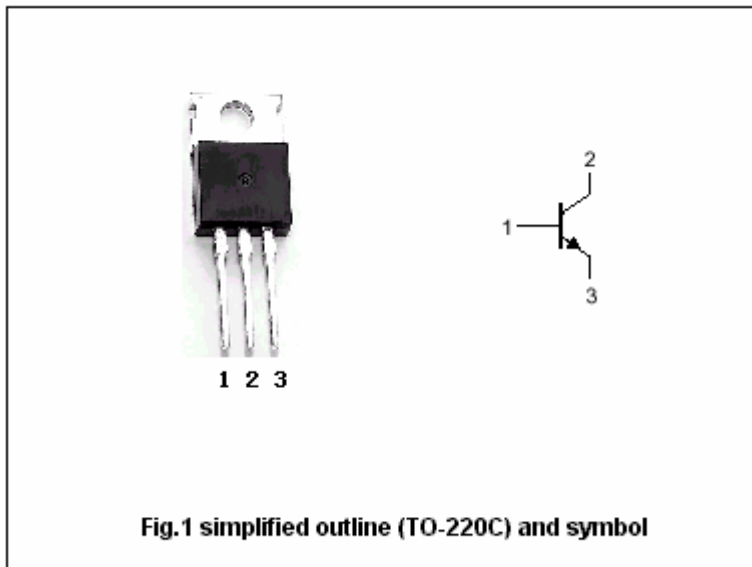


Fig.1 simplified outline (TO-220C) and symbol

Absolute maximum ratings(Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	2N6098	70	V
		2N6099	70	
		2N6100	80	
		2N6101	80	
V _{CEO}	Collector-emitter voltage	2N6098	70	V
		2N6099	70	
		2N6100	80	
		2N6101	80	
V _{EBO}	Emitter-base voltage	Open collector	8	V
I _C	Collector current		10	A
P _T	Total power dissipation	T _C =25°C	75	W
T _j	Junction temperature		150	°C
T _{stg}	Storage temperature		-65~150	°C

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal resistance from junction to case	1.67	°C/W

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CHARACTERISTICS

T_j=25 °C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO(SUS)}	Collector-emitter sustaining voltage	2N6098	I _C =0.1A ; I _B =0	70		V
		2N6099		70		
		2N6100		80		
		2N6101		80		
V _{CEsat-1}	Collector-emitter saturation voltage	I _C =5A ; I _B =0.5A			1.3	V
V _{CEsat-2}	Collector-emitter saturation voltage	I _C =10A ; I _B =2.5A			3.5	V
V _{BE}	Base-emitter on voltage	2N6098/6099	I _C =4A ; V _{CE} =4V		1.3	V
		2N6100/6101		I _C =5A ; V _{CE} =4V		
I _{CBO}	Collector cut-off current	V _{CB} =Rated V _{CBO} ; I _E =0 T _C =150 °C			0.5 2.0	mA
I _{EBO}	Emitter cut-off current	V _{EB} =8V ; I _C =0			1.0	mA
h _{FE}	DC current gain	2N6098/6099	I _C =4A ; V _{CE} =4V	20	80	
		2N6100/6101				
f _T	Transition frequency	I _C =1A ; V _{CE} =10V	0.8			MHz

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PACKAGE OUTLINE

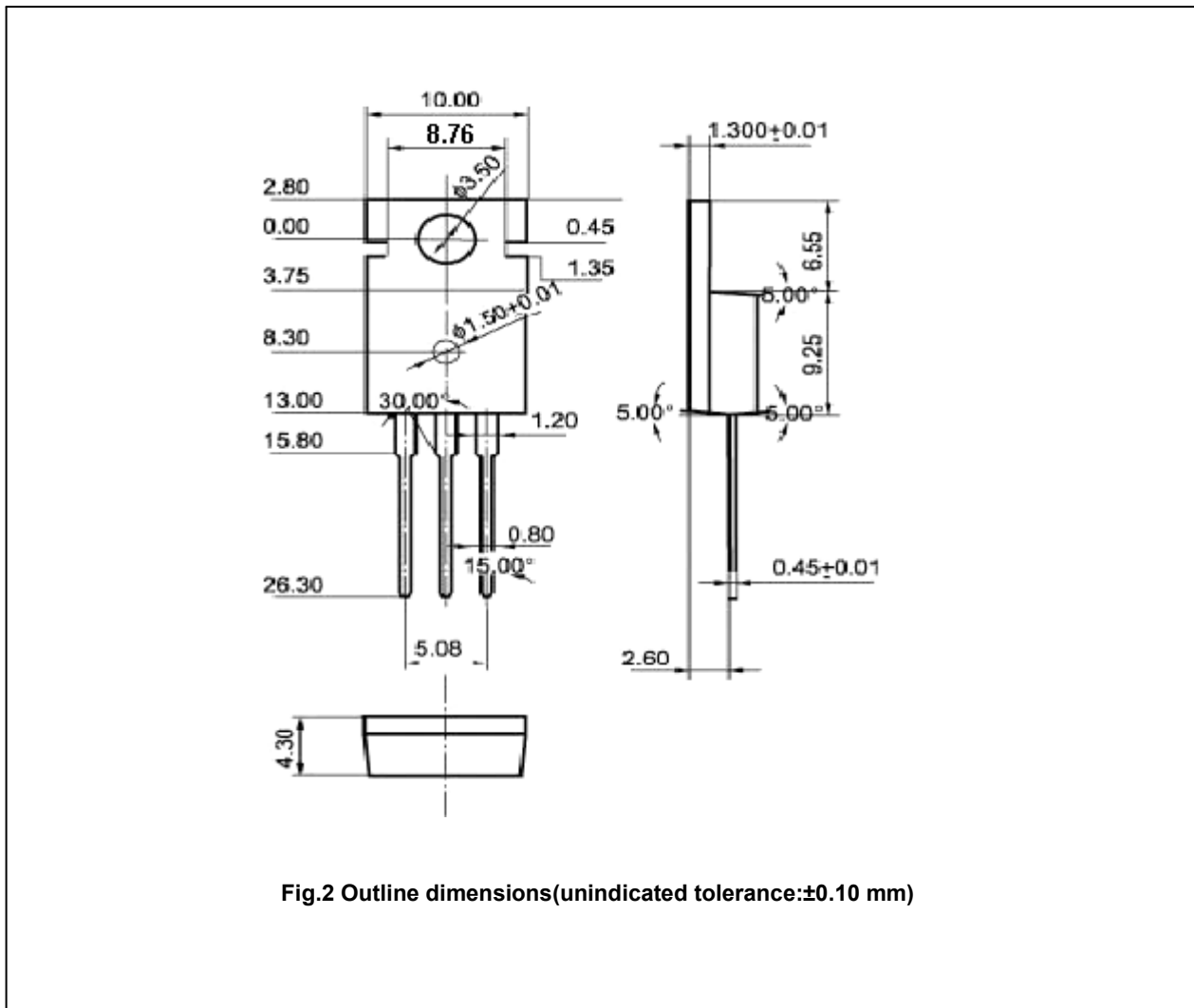


Fig.2 Outline dimensions(unindicated tolerance:±0.10 mm)