

Inchange Semiconductor

Product Specification

Silicon NPN Power Transistors

2N6098 2N6099 2N6100 2N6101

DESCRIPTION

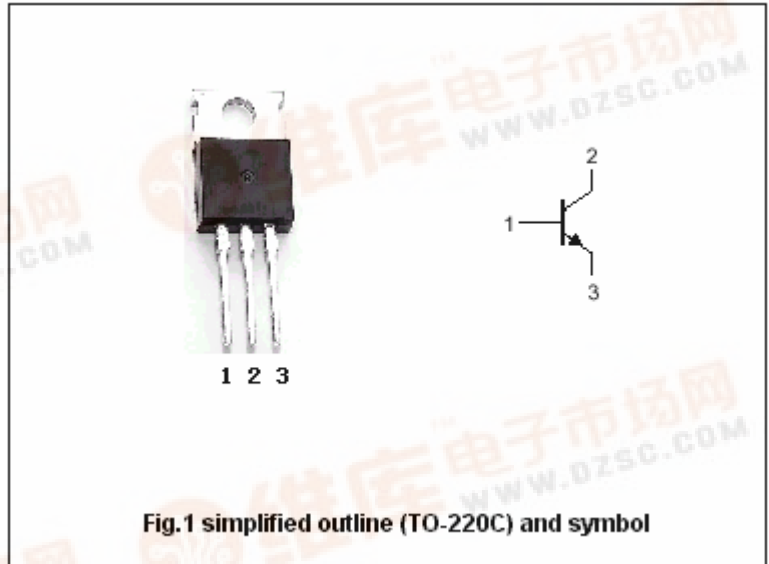
- With TO-220 package
- High current capability

APPLICATIONS

- For use in general-purpose amplifier and switching applications

PINNING

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

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

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	$T_C=25$	75	W
T_j	Junction temperature		150	
T_{stg}	Storage temperature		-65~150	

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal resistance from junction to case	1.67	/W

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CHARACTERISTICS

T_j=25 unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CE0(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			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	I _C =5A ; V _{CE} =4V				
f _T	Transition frequency		I _C =1A ; V _{CE} =10V	0.8			MHz

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PACKAGE OUTLINE

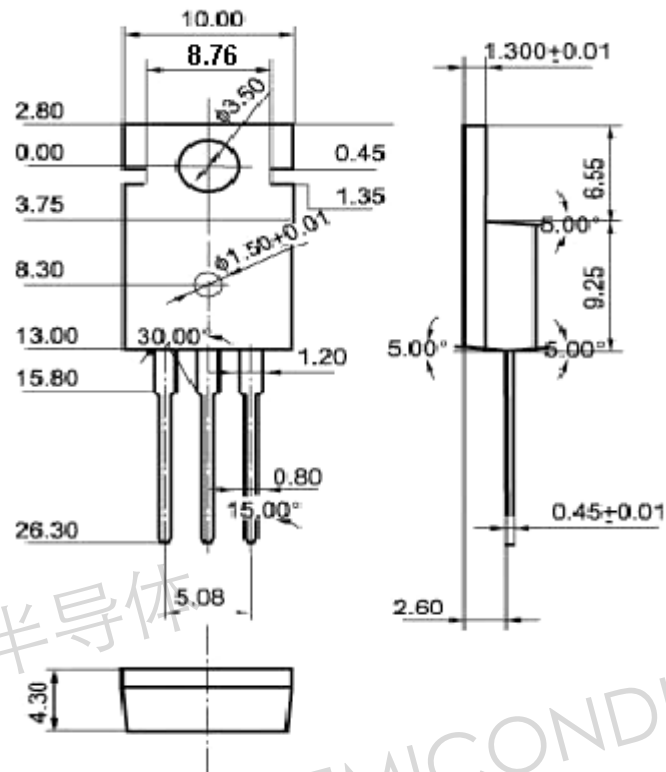


Fig.2 Outline dimensions(unindicated tolerance: ± 0.10 mm)