

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

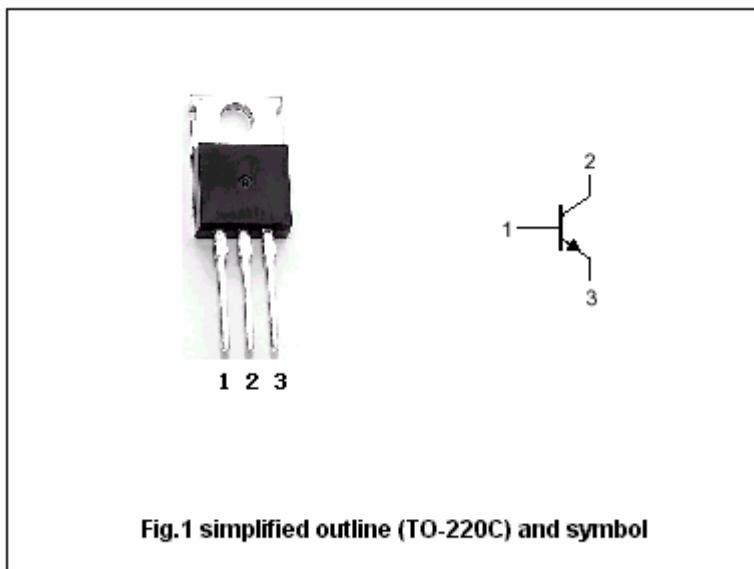
- With TO-220 package
- High current capability

**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(Ta=25℃)**

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	2N6098	70	V
		2N6099	70	
		2N6100	80	
		2N6101	80	
V <sub>CEO</sub>	Collector-emitter voltage	2N6098	70	V
		2N6099	70	
		2N6100	80	
		2N6101	80	
V <sub>EBO</sub>	Emitter-base voltage	Open collector	8	V
I <sub>C</sub>	Collector current		10	A
P <sub>T</sub>	Total power dissipation	T <sub>C</sub> =25℃	75	W
T <sub>j</sub>	Junction temperature		150	℃
T <sub>stg</sub>	Storage temperature		-65~150	℃

**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
R <sub>th j-c</sub>	Thermal resistance from junction to case	1.67	℃/W

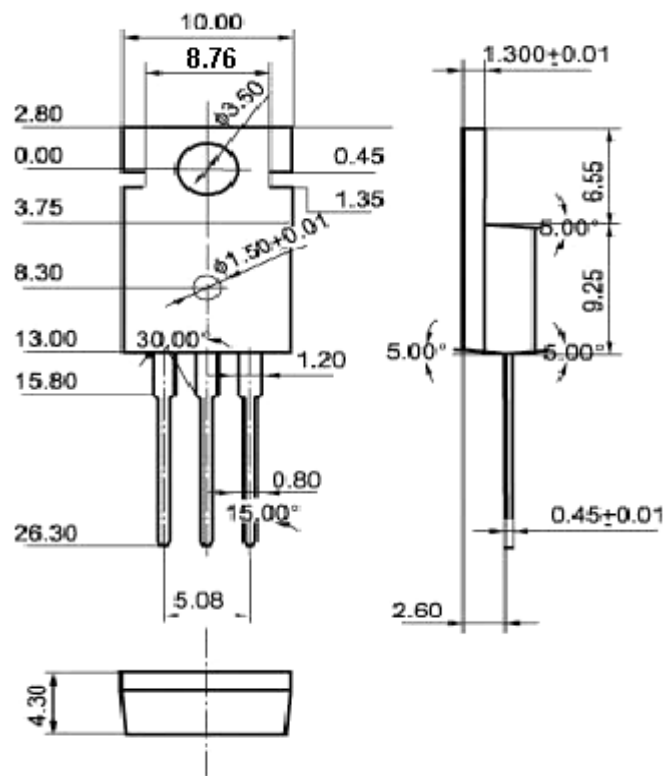
**Silicon NPN Power Transistors****2N6098 2N6099 2N6100 2N6101****CHARACTERISTICS****T<sub>j</sub>=25°C unless otherwise specified**

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CE(SUS)}$	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		$V_{CB}=\text{Rated } V_{CBO}; I_E=0$ $T_C=150^\circ\text{C}$			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	$I_C=5A; V_{CE}=4V$				
$f_T$	Transition frequency		$I_C=1A; V_{CE}=10V$	0.8			MHz

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## PACKAGE OUTLINE

Fig.2 Outline dimensions(unindicated tolerance:  $\pm 0.10$  mm)