

New Jersey Semi-Conductor Products, Inc.

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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

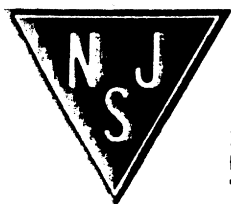
PIN	DESCRIPTION
1	Base
2	Collector; connected to mounting base
3	Emitter

Absolute maximum ratings(Ta=25 °C)

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	2N6098	Open emitter	70	V
		2N6099		70	
		2N6100		80	
		2N6101		80	
V _{CEO}	Collector-emitter voltage	2N6098	Open base	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	
T _{stg}	Storage temperature			-65~150	

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{thj-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 _{CEQ(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

