

SavantIC Semiconductor

Product Specification

Silicon NPN Power Transistors

2N5294 2N5296 2N5298

DESCRIPTION

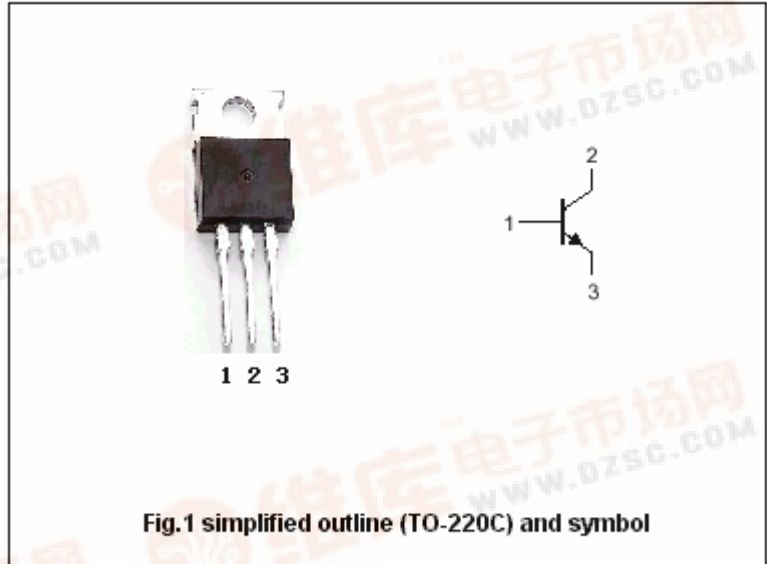
- With TO-220 package
- High power dissipation

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	2N5294	80	V
		2N5296	60	
		2N5298	80	
V_{CEO}	Collector-emitter voltage	2N5294	70	V
		2N5296	40	
		2N5298	60	
V_{EBO}	Emitter-base voltage	Open collector	7	V
I_C	Collector current		4	A
I_B	Base current		2	A
P_T	Total power dissipation	$T_C=25^\circ\text{C}$	36	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	3.47	$^\circ\text{C/W}$

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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	2N5294	70			V
		2N5296	40			
		2N5298	60			
V _{CEsat}	Collector-emitter saturation voltage	2N5294			1.0	V
		2N5296				
		2N5298				
V _{BE}	Base-emitter on voltage	2N5294			1.1	V
		2N5296			1.3	
		2N5298			1.5	
I _{CEV}	Collector cut-off current	2N5294/5298			0.5 3.0	mA
		2N5296			2.0 5.0	
I _{CER}	Collector cut-off current	2N5294/5298			0.5 2.0	mA
I _{EBO}	Emitter cut-off current	2N5294			1.0	mA
		2N5296/5298				
h _{FE}	DC current gain	2N5294	30		120	
		2N5296				
		2N5298	20		80	
f _T	Transition frequency		0.8			MHz
t _{on}	Turn-on time	2N5294			5.0	μs
		2N5296				
		2N5298				
t _{off}	Turn-off time	2N5294			15	μs
		2N5296				
		2N5298				

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PACKAGE OUTLINE

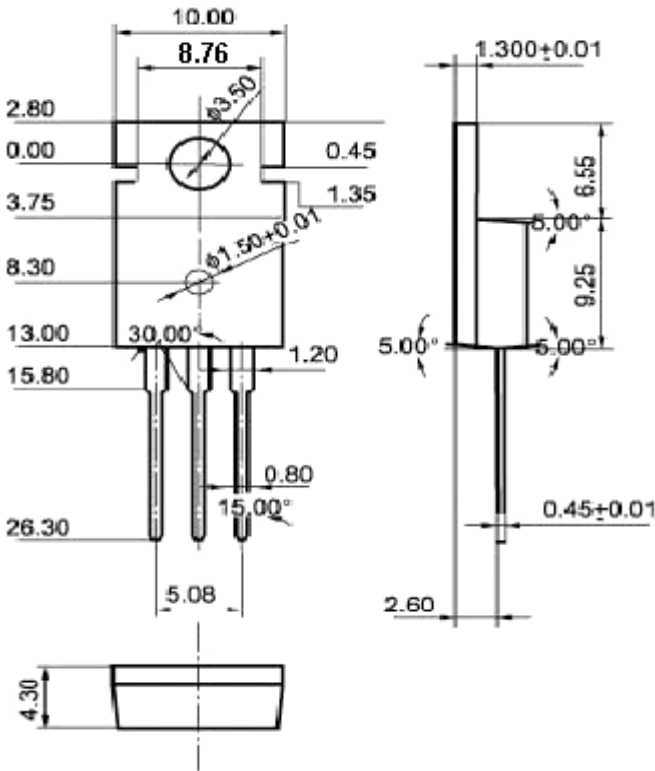


Fig.2 Outline dimensions(unindicated tolerance:±0.10 mm)