



Silicon PNP Power Transistors

2N4918 2N4919 2N4920

DESCRIPTION

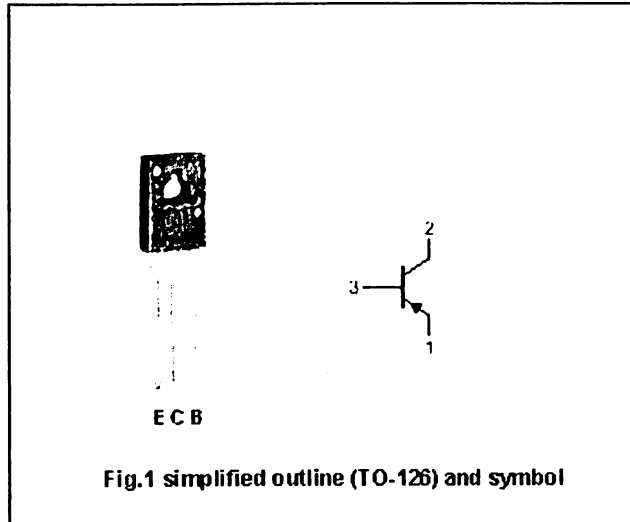
- With TO-126 package
- Complement to type 2N4921/4922/4923
- Excellent safe operating area
- Low collector saturation voltage

APPLICATIONS

- For driver circuits ,switching ,and amplifier applications

PINNING

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



Absolute maximum ratings(Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	2N4918	-40	V
		2N4919	-60	
		2N4920	-80	
V <sub>CEO</sub>	Collector-emitter voltage	2N4918	-40	V
		2N4919	-60	
		2N4920	-80	
V <sub>EBO</sub>	Emitter-base voltage	Open collector	-5	V
I <sub>C</sub>	Collector current		-1	A
I <sub>CM</sub>	Collector current-Peak		-3	A
I <sub>B</sub>	Base current		-1	A
P <sub>D</sub>	Total power dissipation	T <sub>C</sub> =25°C	30	W
T <sub>J</sub>	Junction temperature		150	°C
T <sub>stg</sub>	Storage temperature		-65~150	°C

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
R <sub>thjc</sub>	Thermal resistance junction to case	4.16	°C/W

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## CHARACTERISTICS

T<sub>j</sub>=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT	
V <sub>CE0(SUS)</sub>	Collector-emitter sustaining voltage	2N4918	-40			V	
		2N4919	-60				
		2N4920	-80				
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =-1.0A ; I <sub>B</sub> =-0.1A			-0.6	V	
V <sub>BEsat</sub>	Base-emitter saturation voltage	I <sub>C</sub> =-1.0A ; I <sub>B</sub> =-0.1A			-1.3	V	
V <sub>BE</sub>	Base-emitter on voltage	I <sub>C</sub> =-1A ; V <sub>CE</sub> =-1V			-1.3	V	
I <sub>CEO</sub>	Collector cut-off current	2N4918	V <sub>CE</sub> =-20V ; I <sub>B</sub> =0			-0.5	mA
		2N4919	V <sub>CE</sub> =-30V ; I <sub>B</sub> =0				
		2N4920	V <sub>CE</sub> =-40V ; I <sub>B</sub> =0				
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> = Rated V <sub>CBO</sub> ; I <sub>E</sub> =0			-0.1	mA	
I <sub>CEx</sub>	Collector cut-off current	V <sub>CE</sub> = Rated V <sub>CE0</sub> ; V <sub>BE(off)</sub> =1.5V T <sub>C</sub> =125°C			-0.1 -0.5	mA	
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =-5V ; I <sub>C</sub> =0			-1.0	mA	
h <sub>FE-1</sub>	DC current gain	I <sub>C</sub> =-50mA ; V <sub>CE</sub> =-1V	40				
h <sub>FE-2</sub>	DC current gain	I <sub>C</sub> =-500mA ; V <sub>CE</sub> =-1V	30		150		
h <sub>FE-3</sub>	DC current gain	I <sub>C</sub> =-1A ; V <sub>CE</sub> =-1V	10				
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =-250mA ; V <sub>CE</sub> =-10V ; f=1MHz	3.0			MHz	
C <sub>OB</sub>	Output capacitance	f=100kHz ; V <sub>CB</sub> =-10V ; I <sub>E</sub> =0			100	pF	

PACKAGE OUTLINE

