

Silicon PNP Power Transistors

2N4918 2N4919 2N4920

DESCRIPTION

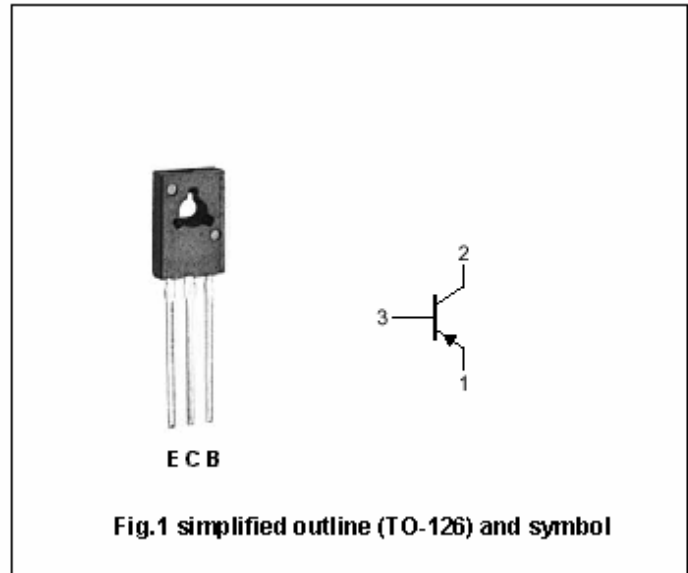
- With TO-126 package
- Complement to type 2N4921/4922/4923
- Excellent safe operating area
- Low collector saturation voltage

APPLICATIONS

- For driver circuits ,switching ,and amplifier applications

PINNING

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

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

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	2N4918	-40	V
		2N4919	-60	
		2N4920	-80	
V_{CEO}	Collector-emitter voltage	2N4918	-40	V
		2N4919	-60	
		2N4920	-80	
V_{EBO}	Emitter-base voltage	Open collector	-5	V
I_C	Collector current		-1	A
I_{CM}	Collector current-Peak		-3	A
I_B	Base current		-1	A
P_D	Total power dissipation	$T_C=25^\circ\text{C}$	30	W
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-65~150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
$R_{th\ j-c}$	Thermal resistance junction to case	4.16	$^\circ\text{C}/\text{W}$

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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	2N4918	-40			V	
		2N4919	-60				
		2N4920	-80				
V _{CEsat}	Collector-emitter saturation voltage	I _C =-1.0A ; I _B =-0.1A			-0.6	V	
V _{BEsat}	Base-emitter saturation voltage	I _C =-1.0A ; I _B =-0.1A			-1.3	V	
V _{BE}	Base-emitter on voltage	I _C =-1A ; V _{CE} =-1V			-1.3	V	
I _{CEO}	Collector cut-off current	2N4918	V _{CE} =-20V; I _B =0			-0.5	mA
		2N4919	V _{CE} =-30V; I _B =0				
		2N4920	V _{CE} =-40V; I _B =0				
I _{CBO}	Collector cut-off current	V _{CB} = Rated V _{CBO} ; I _E =0			-0.1	mA	
I _{CEX}	Collector cut-off current	V _{CE} = Rated V _{CEO} ; V _{BE(off)} =1.5V T _C =125°C			-0.1 -0.5	mA	
I _{EBO}	Emitter cut-off current	V _{EB} =-5V; I _C =0			-1.0	mA	
h _{FE-1}	DC current gain	I _C =-50mA ; V _{CE} =-1V	40				
h _{FE-2}	DC current gain	I _C =-500mA ; V _{CE} =-1V	30		150		
h _{FE-3}	DC current gain	I _C =-1A ; V _{CE} =-1V	10				
f _T	Transition frequency	I _C =-250mA ; V _{CE} =-10V; f=1MHz	3.0			MHz	
C _{OB}	Output capacitance	f=100kHz ; V _{CB} =-10V; I _E =0			100	pF	

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PACKAGE OUTLINE

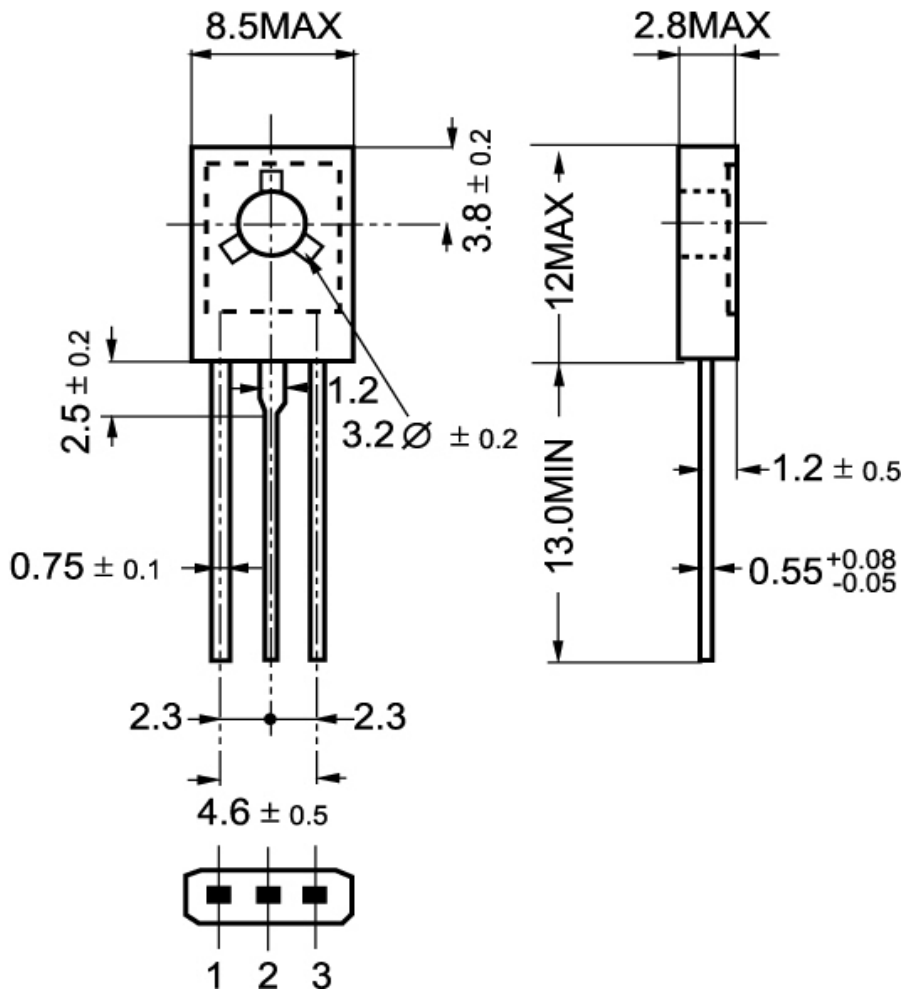


Fig.2 Outline dimensions