

Silicon NPN Power Transistors

2N4921 2N4922 2N4923

DESCRIPTION

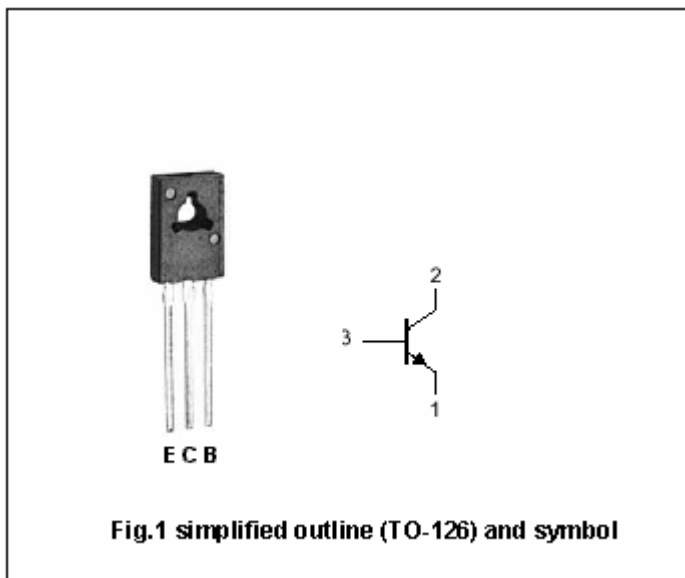
- With TO-126 package
- Complement to type 2N4918/4919/4920
- Excellent safe operating area
- Low collector saturation voltage

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 _{CBO}	Collector-base voltage	2N4921	40	V
		2N4922	60	
		2N4923	80	
V _{CEO}	Collector-emitter voltage	2N4921	40	V
		2N4922	60	
		2N4923	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°C	30	W
T _j	Junction temperature		150	°C
T _{stg}	Storage temperature		-65~150	°C

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
R _{th j-c}	Thermal resistance junction to case	4.16	°C/W

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CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT	
V _{CE0(SUS)}	Collector-emitter sustaining voltage	2N4921	40			V	
		2N4922	60				
		2N4923	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	2N4921	V _{CE} =20V ; I _B =0			0.5	mA
		2N4922	V _{CE} =30V ; I _B =0				
		2N4923	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 _{CE0} ; 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	

PACKAGE OUTLINE

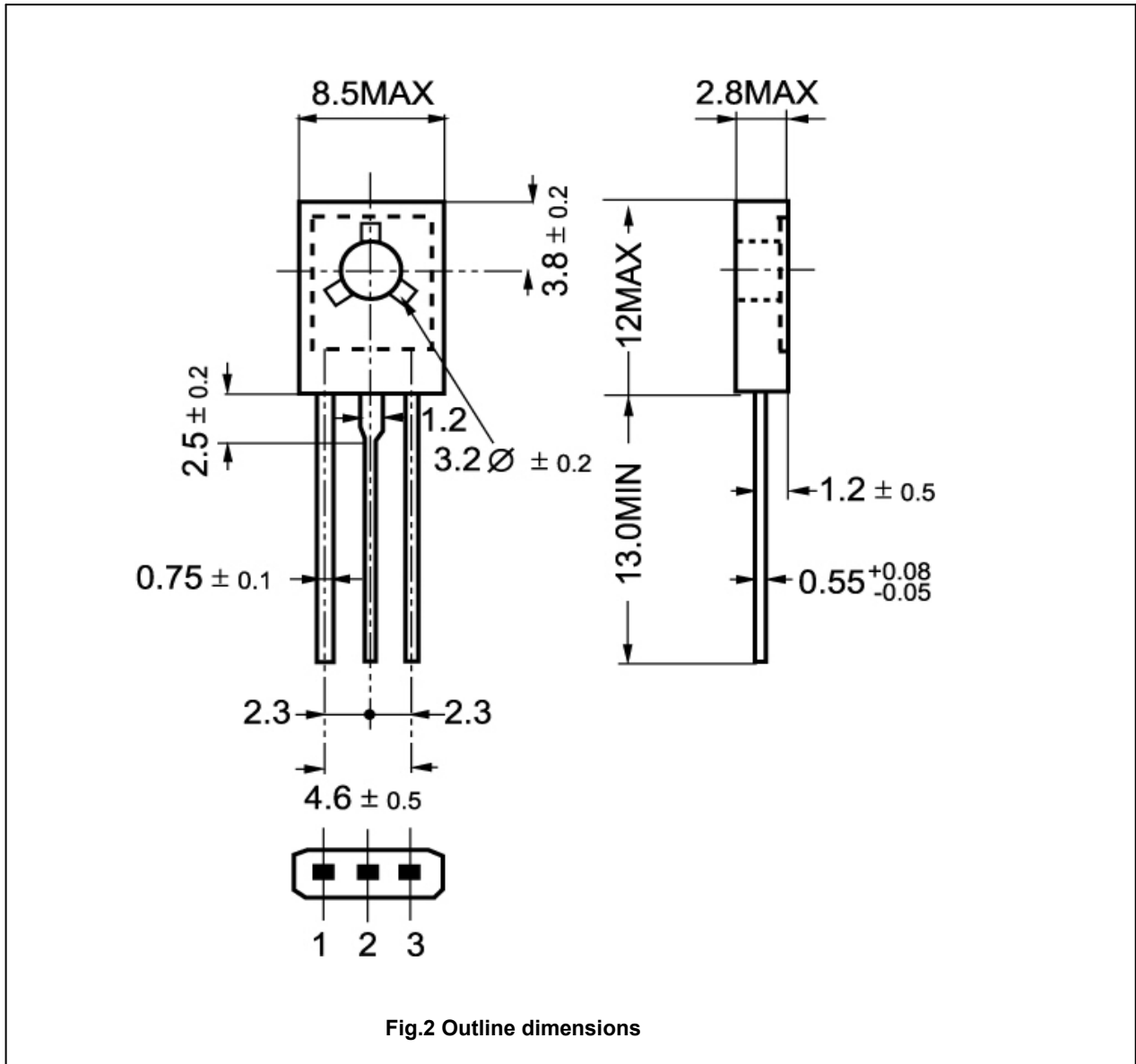


Fig.2 Outline dimensions