

Silicon NPN Power Transistors

2N4921 2N4922 2N4923

DESCRIPTION

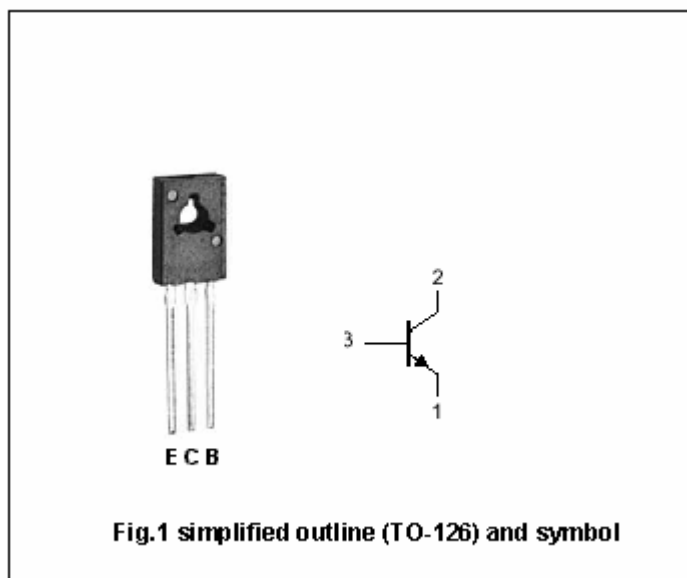
- With TO-126 package
- Complement to type 2N4918/4919/4920
- Excellent safe operating area
- Low collector saturation voltage

APPLICATIONS

- For driver circuits ,switching ,and amplifier applications

PINNING

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

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

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	$T_C=25^{\circ}\text{C}$	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	$^{\circ}\text{C/W}$

Silicon NPN Power Transistors

2N4921 2N4922 2N4923

CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEQ(SUS)}	Collector-emitter sustaining voltage	2N4921	I _C =0.1A; I _B =0	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 _{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

Silicon NPN Power Transistors

2N4921 2N4922 2N4923

PACKAGE OUTLINE

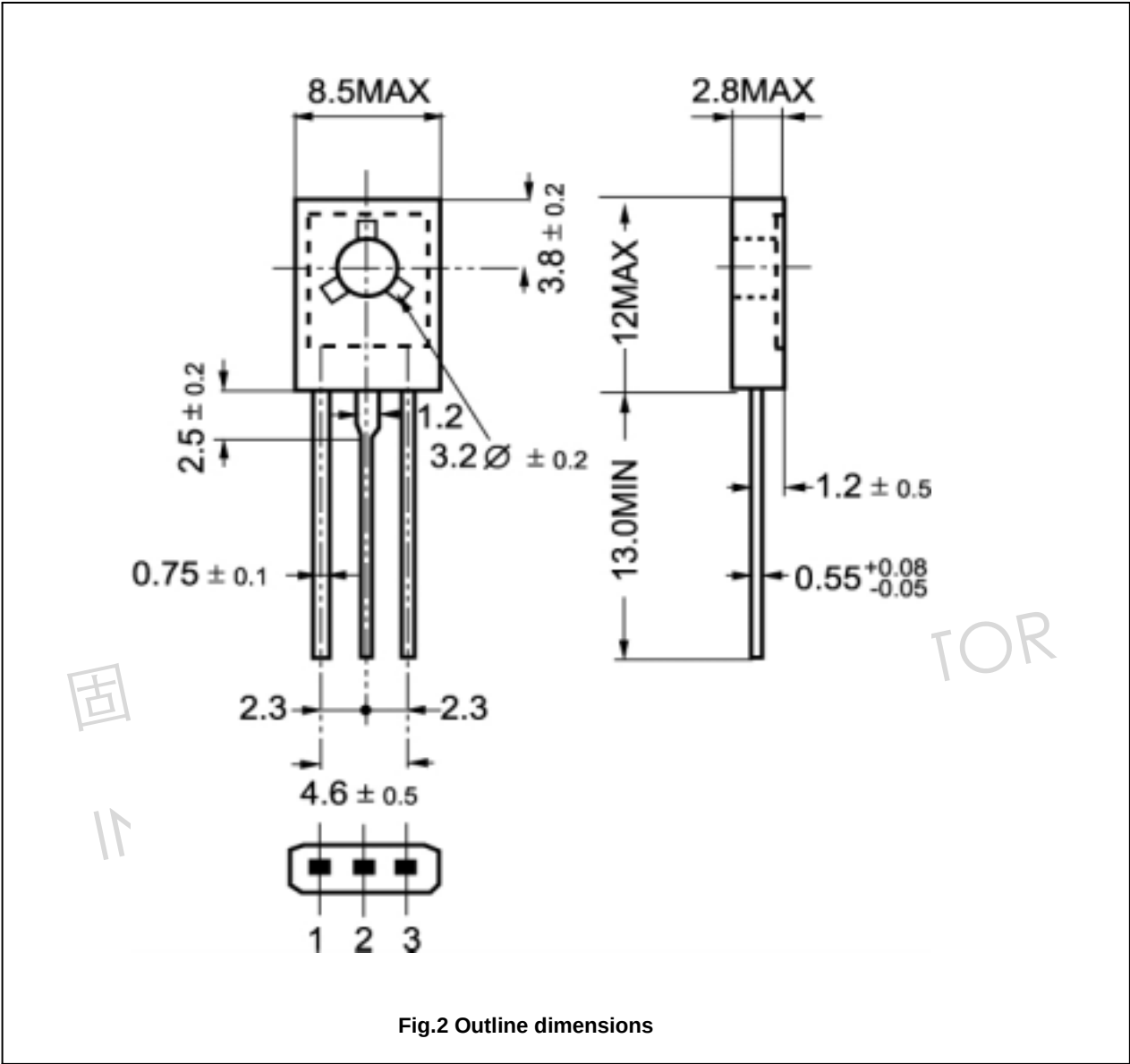


Fig.2 Outline dimensions