

Silicon PNP Power Transistors

2N4918 2N4919 2N4920

DESCRIPTION

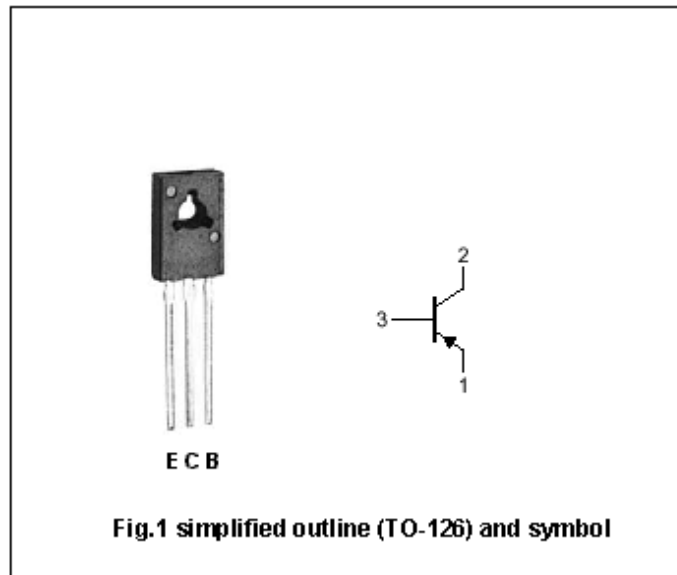
- With TO-126 package
- Complement to type 2N4921,2N4922 2N4923
- Excellent safe operating area
- Low collector-emitter saturation voltage

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	Open emitter	-40	V
		2N4919		-60	
		2N4920		-80	
V_{CEO}	Collector-emitter voltage	2N4918	Open base	-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	$^\circ\text{C/W}$

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CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO}	Collector-emitter sustaining voltage	2N4918	I _C =-0.1A; I _B =0	-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}	Emitter-base saturation voltage		I _C =-1.0A; I _B =-0.1A			-1.3	V
V _{BE}	Emitter-base 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

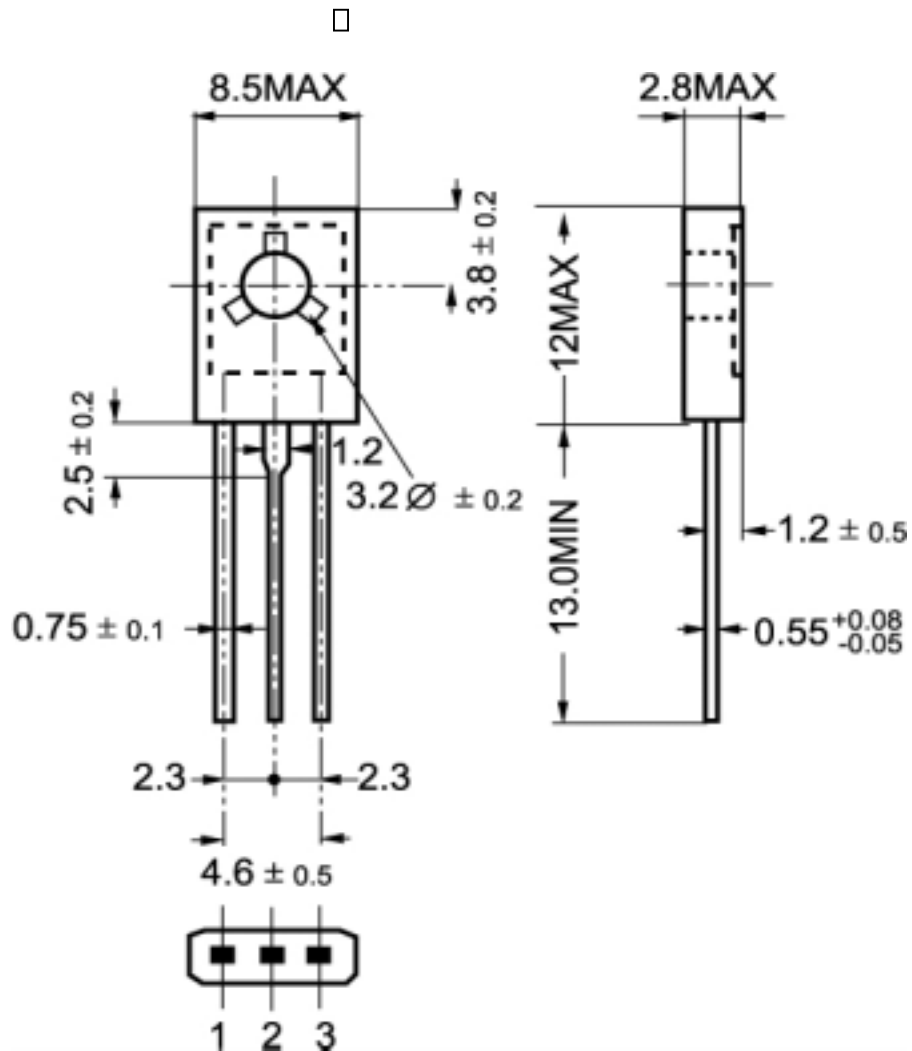


Fig.2 Outline dimensions