

Silicon PNP Power Transistors

2N5193 2N5194 2N5195

DESCRIPTION

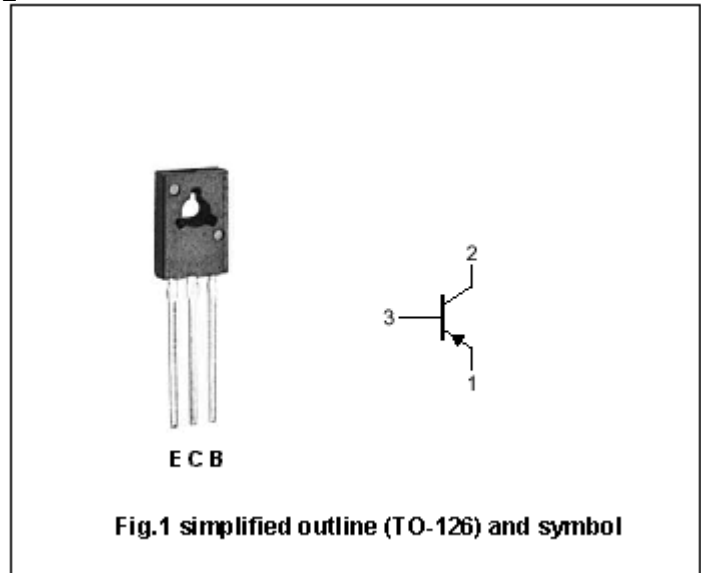
- With TO-126 package
- Complement to type 2N5190,2N5191,2N5192
- Excellent safe operating area

APPLICATIONS

- For use in medium power linear and switching 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	2N5193	-40	V
		2N5194	-60	
		2N5195	-80	
V_{CEO}	Collector-emitter voltage	2N5193	-40	V
		2N5194	-60	
		2N5195	-80	
V_{EBO}	Emitter-base voltage	Open collector	-5	V
I_C	Collector current		-4	A
I_{CM}	Collector current-Peak		-7	A
I_B	Base current		-1	A
P_D	Total power dissipation	$T_C=25^\circ\text{C}$	40	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	3.12	$^\circ\text{C/W}$

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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	2N5193	I _C =-0.1A; I _B =0	-40			V
		2N5194		-60			
		2N5195		-80			
V _{CEsat-1}	Collector-emitter saturation voltage		I _C =-1.5A; I _B =-0.15A			-0.6	V
V _{CEsat-2}	Collector-emitter saturation voltage		I _C =-4A; I _B =-1A			-1.2	V
V _{BE}	Emitter-base on voltage		I _C =-1.5A; V _{CE} =-2V			-1.2	V
I _{CEO}	Collector cut-off current	2N5193	V _{CE} =-40V; I _B =0			-1.0	mA
		2N5194	V _{CE} =-60V; I _B =0				
		2N5195	V _{CE} =-80V; I _B =0				
I _{CBO}	Collector cut-off current	2N5193	V _{CB} =-40V; I _E =0			-0.1	mA
		2N5194	V _{CB} =-60V; I _E =0				
		2N5195	V _{CB} =-80V; I _E =0				
I _{CEX}	Collector cut-off current	2N5193	V _{CE} =-40V; V _{BE(off)} =-1.5V T _C =125°C			-0.1 -2.0	mA
		2N5194	V _{CE} =-60V; V _{BE(off)} =-1.5V T _C =125°C			-0.1 -2.0	
		2N5195	V _{CE} =-80V; V _{BE(off)} =-1.5V T _C =125°C			-0.1 -2.0	
I _{EBO}	Emitter cut-off current		V _{EB} =-5V; I _C =0			-1.0	mA
h _{FE-1}	DC current gain	2N5193	I _C =-1.5A; V _{CE} =-2V	25		100	
		2N5194					
		2N5195		20		80	
h _{FE-2}	DC current gain	2N5193	I _C =-4A; V _{CE} =-2V	10			
		2N5194					
		2N5195		7			
f _T	Transition frequency		I _C =-1A; V _{CE} =-10V; f=1MHz	2			MHz

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PACKAGE OUTLINE

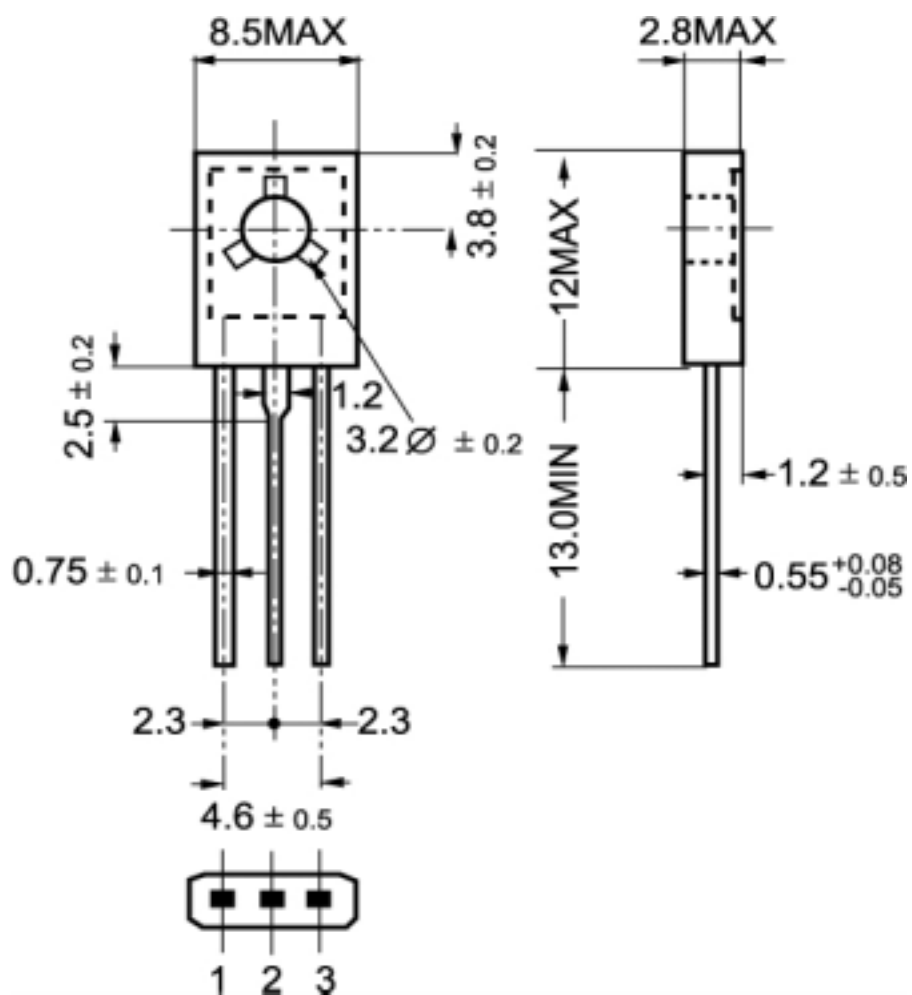


Fig.2 Outline dimensions