Silicon PNP Power Transistors 2N5193 2N5194 2N5195

DESCRIPTION

·With TO-126 package
·Complement to type 2N5190/5191/5192
·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

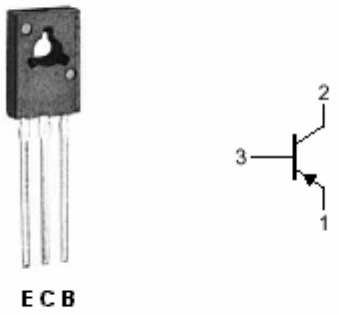

Fig.1 simplified outline (TO-126) and symbol

Absolute maximum ratings(Ta=25□)

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	2N5193	Open emitter	-40	V
		2N5194		-60	
		2N5195		-80	
V_{CEO}	Collector-emitter voltage	2N5193	Open base	-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□	40	W
T_j	Junction temperature			150	□
T_{stg}	Storage temperature			-65~150	□

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
$R_{th\ j\text{-}c}$	Thermal resistance junction to case	3.12	□/W

CHARACTERISTICS

Tj=25□ unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	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}	Base-emitter 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□			-0.1 -2.0	mA
		2N5194	V_{CE}=-60V; $V_{BE(off)}$=-1.5V T_C=125□			-0.1 -2.0	
		2N5195	V_{CE}=-80V; $V_{BE(off)}$=-1.5V T_C=125□			-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

PACKAGE OUTLINE

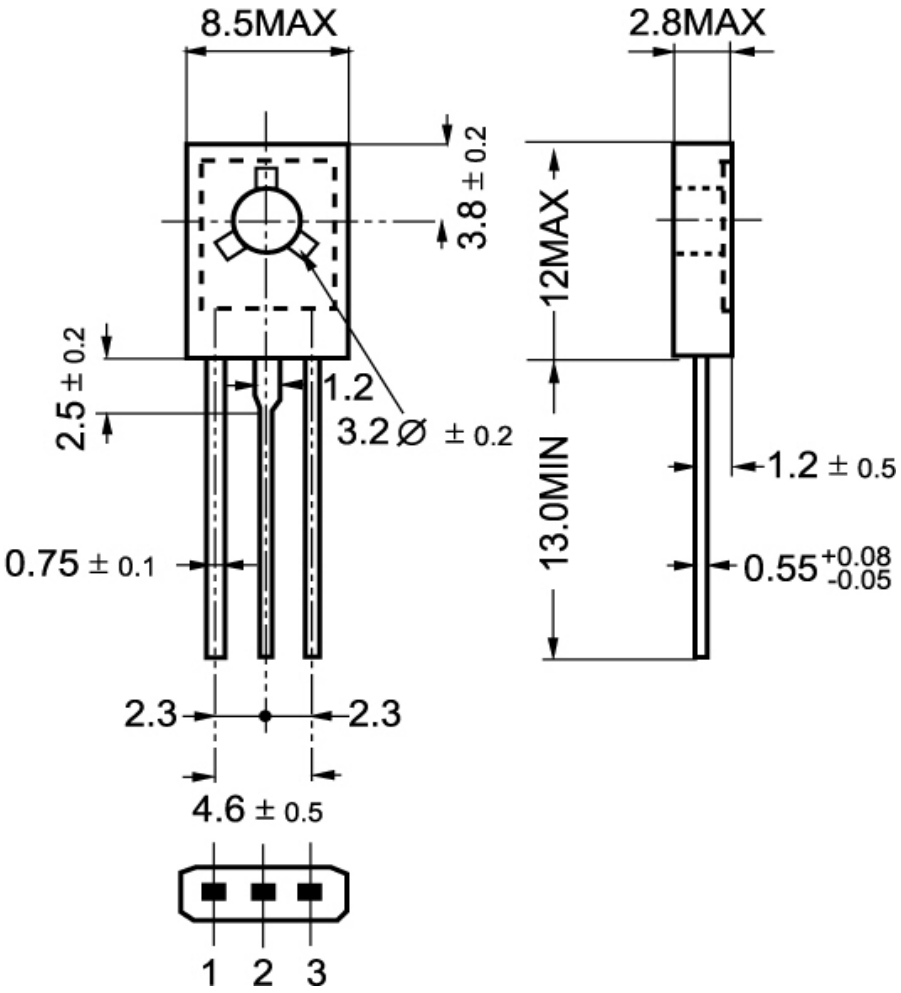

Fig.2 Outline dimensions