

Silicon PNP Power Transistors

BD190

DESCRIPTION

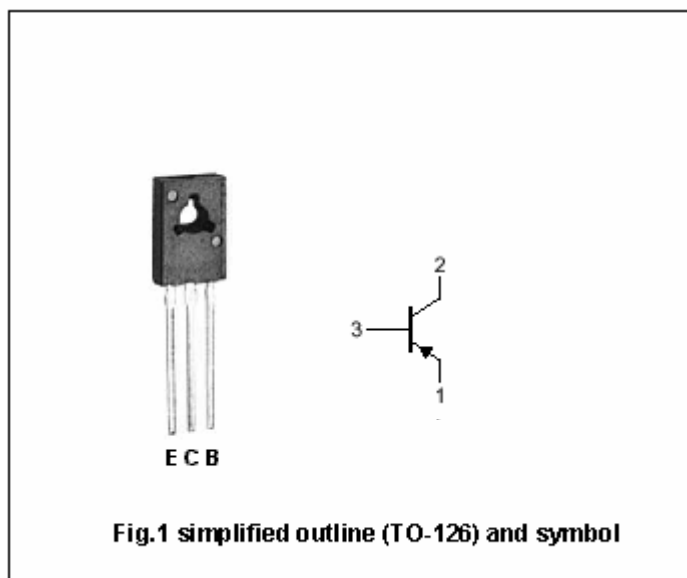
- With TO-126 package
- High current
- Complement to type BD189

APPLICATIONS

- For use in 5 to 10 watt audio amplifiers utilizing complementary or quasi complementary circuits.

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	Open emitter	-70	V
V_{CEO}	Collector-emitter voltage	Open base	-60	V
V_{EBO}	Emitter -base voltage	Open collector	-5	V
I_C	Collector current (DC)		-4	A
I_B	Base current		-2	A
P_t	Total power dissipation	$T_{mb} \leq 70^\circ\text{C}$	40	W
T_j	Junction temperature		-65~150	$^\circ\text{C}$
T_{stg}	Storage temperature		-65~150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
$R_{th\ j-a}$	Thermal resistance, junction to case	3.12	$^\circ\text{C}/\text{W}$

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CHARACTERISTICS

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 $T_j=25^\circ\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(SUS)CEO}$	Collector-emitter sustaining voltage	$I_C=-0.1\text{A}; I_B=0$	-60			V
V_{CEsat}	Collector-emitter saturation voltage	$I_C=-2.0\text{A}; I_B=-0.2\text{A}$			-1.0	V
V_{BE}	Base-emitter on voltage	$I_C=-2\text{A}; V_{CE}=-2\text{V}$			-1.5	V
I_{CBO}	Collector cut-off current	$V_{CB}=-70\text{V}; I_E=0$			-0.1	mA
I_{EBO}	Emitter cut-off current	$V_{EB}=-5\text{V}; I_C=0$			-1.0	mA
h_{FE-1}	DC current gain	$I_C=-0.5\text{A}; V_{CE}=-2\text{V}$	40			
h_{FE-2}	DC current gain	$I_C=-2\text{A}; V_{CE}=-2\text{V}$	15			
f_T	Transition frequency	$I_C=-1.0\text{A}; V_{CE}=-10\text{V}; f=1.0\text{MHz}$	2.0			MHz

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PACKAGE OUTLINE

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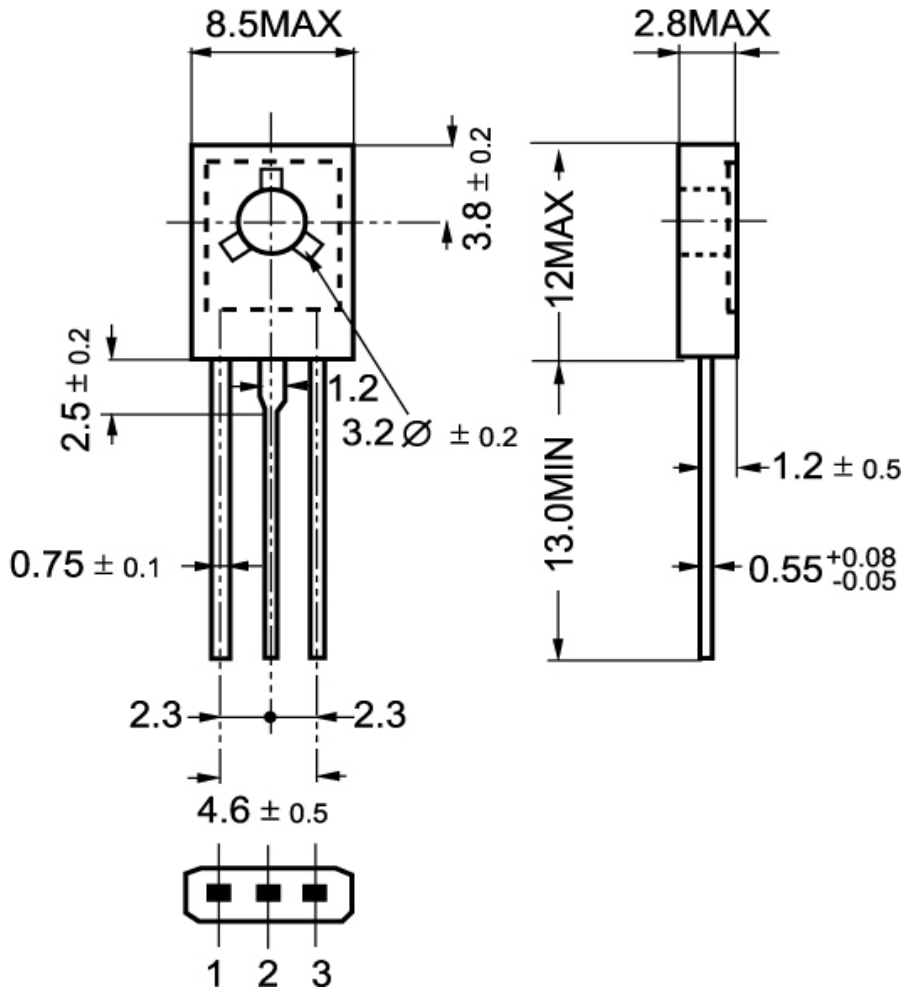


Fig.2 Outline dimensions