

Silicon NPN Power Transistors

2SD1380

DESCRIPTION

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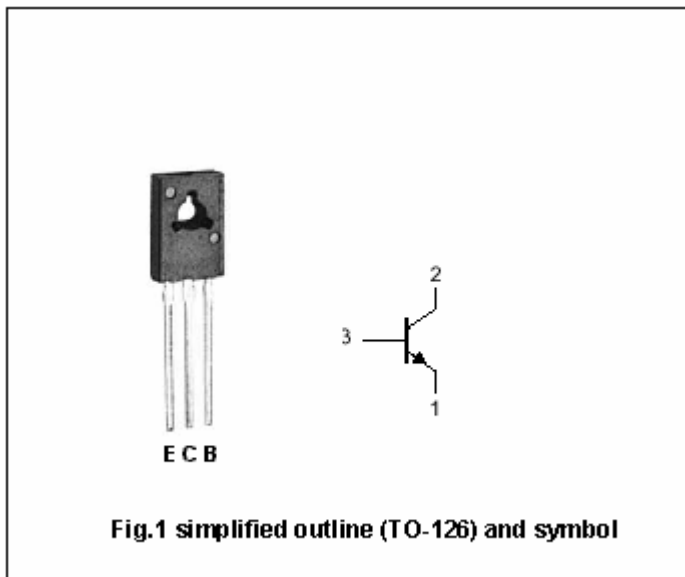
- With TO-126 package
- Complement to type 2SB1009
- Low collector saturation voltage

APPLICATIONS

- For low frequency power amplifier applications

PINNING

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



Absolute maximum ratings(Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	Open emitter	40	V
V <sub>CEO</sub>	Collector-emitter voltage	Open base	32	V
V <sub>EBO</sub>	Emitter-base voltage	Open collector	5	V
I <sub>C</sub>	Collector current		2	A
P <sub>C</sub>	Collector power dissipation	T <sub>C</sub> =25°C	10	W
T <sub>j</sub>	Junction temperature		150	°C
T <sub>stg</sub>	Storage temperature		-55~150	°C

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## CHARACTERISTICS

T<sub>j</sub>=25°C unless otherwise specified

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SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)CEO</sub>	Collector-emitter breakdown voltage	I <sub>C</sub> =1mA ; I <sub>B</sub> =0	32			V
V <sub>(BR)CBO</sub>	Collector-base breakdown voltage	I <sub>C</sub> =50μA ; I <sub>E</sub> =0	40			V
V <sub>(BR)EBO</sub>	Emitter-base breakdown voltage	I <sub>E</sub> =50μA ; I <sub>C</sub> =0	5			V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =2.0A ; I <sub>B</sub> =0.2A		0.5	0.8	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =20V ; I <sub>E</sub> =0			1	μA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =4V ; I <sub>C</sub> =0			1	μA
h <sub>FE</sub>	DC current gain	I <sub>C</sub> =0.5A ; V <sub>CE</sub> =3V	82		390	
f <sub>T</sub>	Transition frequency	I <sub>E</sub> =-0.5A ; V <sub>CE</sub> =5V		100		MHz
C <sub>OB</sub>	Collector output capacitance	I <sub>E</sub> =0 ; f=1MHz ; V <sub>CB</sub> =10V		30		pF

◆ h<sub>FE</sub> Classifications

P	Q	R
82-180	120-270	180-390

PACKAGE OUTLINE

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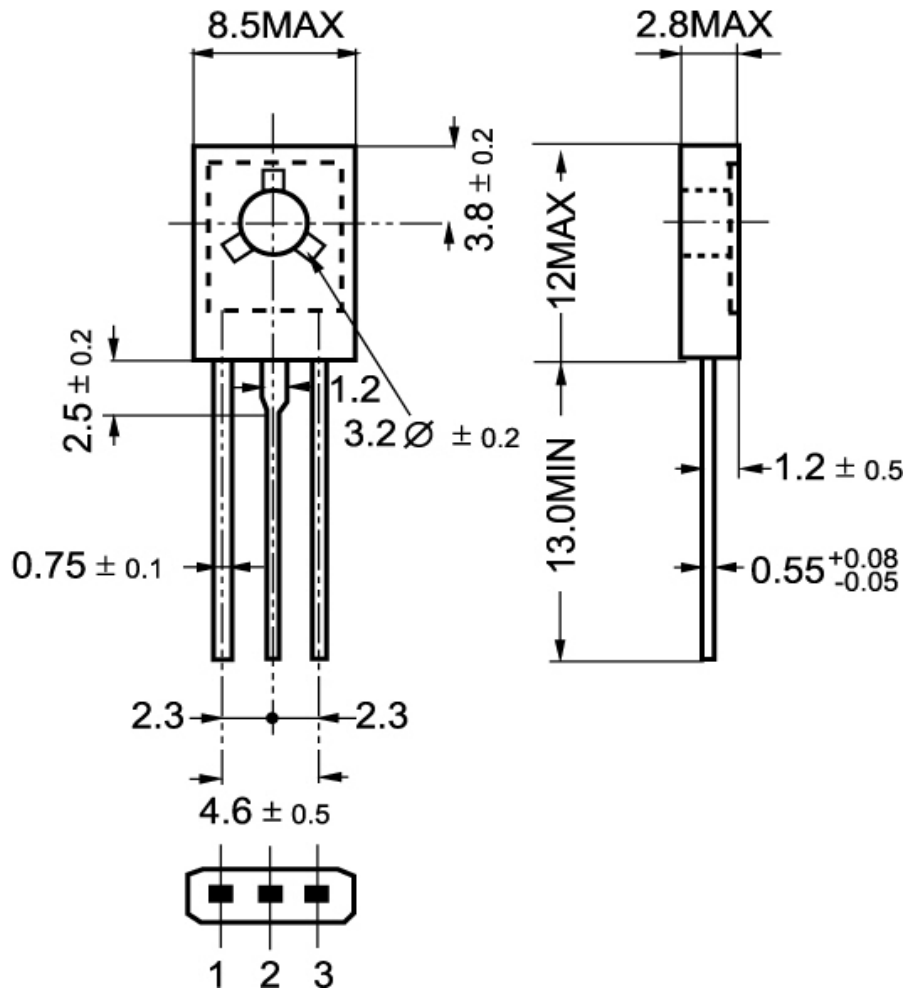


Fig.2 Outline dimensions