

Silicon NPN Power Transistors

2SD1380

DESCRIPTION

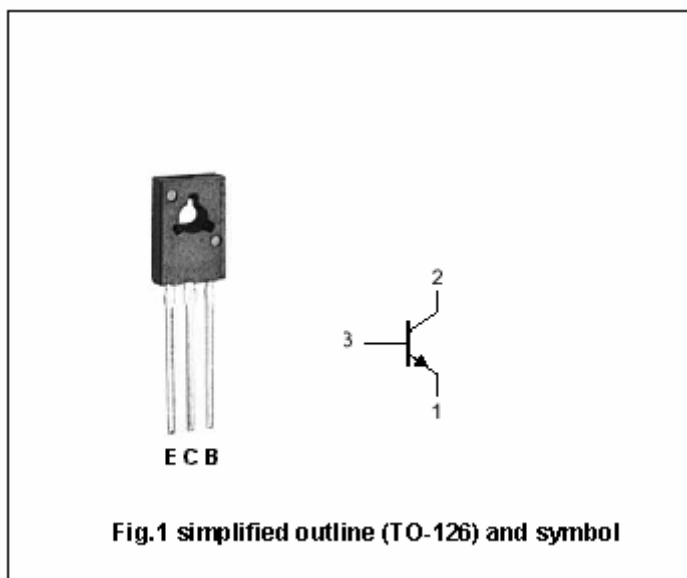
- With TO-126 package
- Complement to type 2SB1009
- Low collector saturation voltage

APPLICATIONS

- For low frequency power amplifier applications

PINNING

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

Absolute maximum ratings($T_a=25^{\circ}\text{C}$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	40	V
V_{CEO}	Collector-emitter voltage	Open base	32	V
V_{EBO}	Emitter-base voltage	Open collector	5	V
I_C	Collector current		2	A
P_C	Collector power dissipation	$T_C=25^{\circ}\text{C}$	10	W
T_j	Junction temperature		150	$^{\circ}\text{C}$
T_{stg}	Storage temperature		-55~150	$^{\circ}\text{C}$

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CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C=1\text{mA}; I_B=0$	32			V
$V_{(BR)CBO}$	Collector-base breakdown voltage	$I_C=50\mu\text{A}; I_E=0$	40			V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	$I_E=50\mu\text{A}; I_C=0$	5			V
V_{CEsat}	Collector-emitter saturation voltage	$I_C=2.0\text{A}; I_B=0.2\text{A}$		0.5	0.8	V
I_{CBO}	Collector cut-off current	$V_{CB}=20\text{V}; I_E=0$			1	μA
I_{EBO}	Emitter cut-off current	$V_{EB}=4\text{V}; I_C=0$			1	μA
h_{FE}	DC current gain	$I_C=0.5\text{A}; V_{CE}=3\text{V}$	82		390	
f_T	Transition frequency	$I_E=0.5\text{A}; V_{CE}=5\text{V}$		100		MHz
C_{OB}	Collector output capacitance	$I_E=0; f=1\text{MHz}; V_{CB}=10\text{V}$		30		pF

◆ h_{FE} Classifications

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

PACKAGE OUTLINE

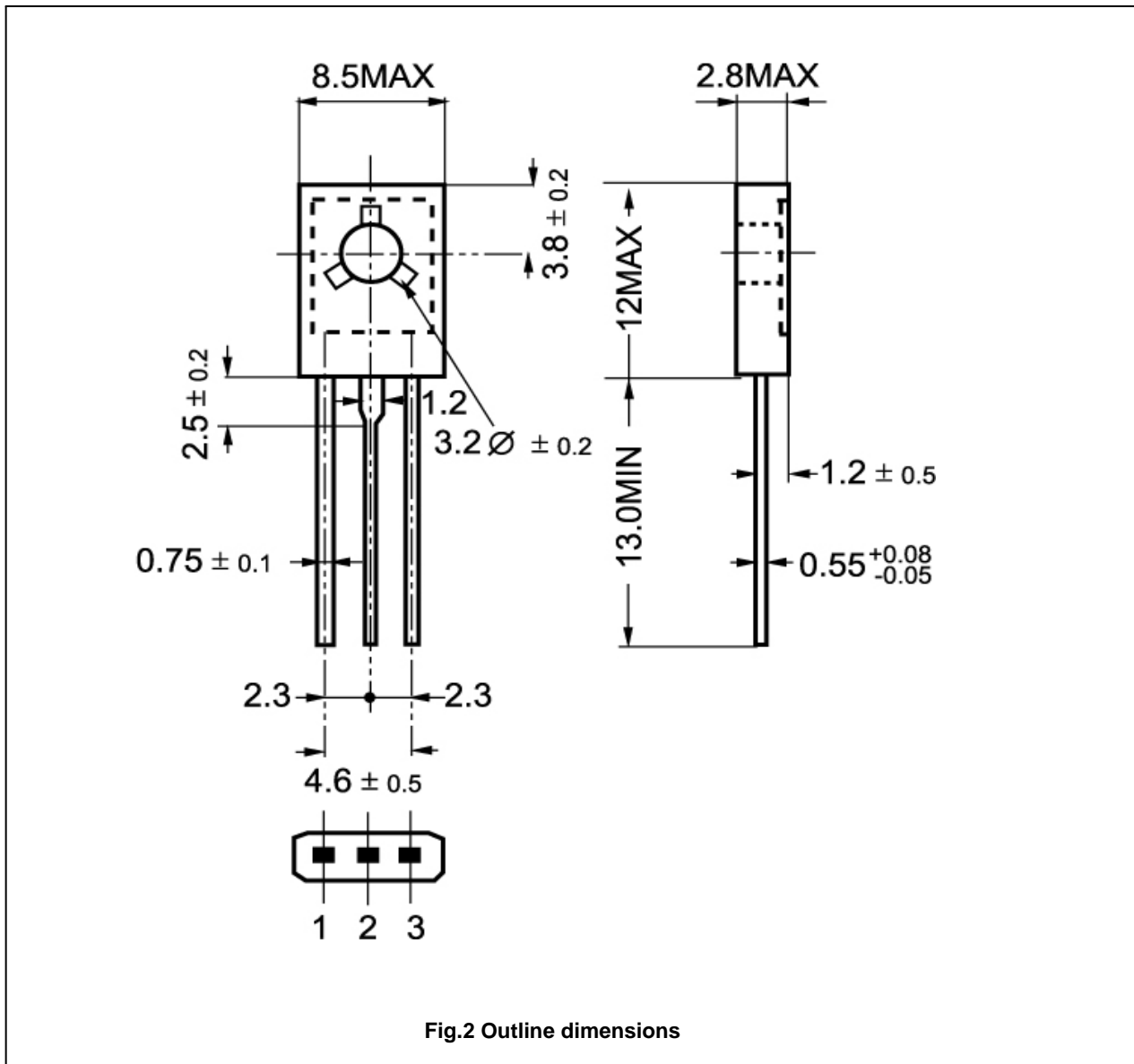


Fig.2 Outline dimensions