

Silicon NPN Power Transistors

2SD1506

DESCRIPTION

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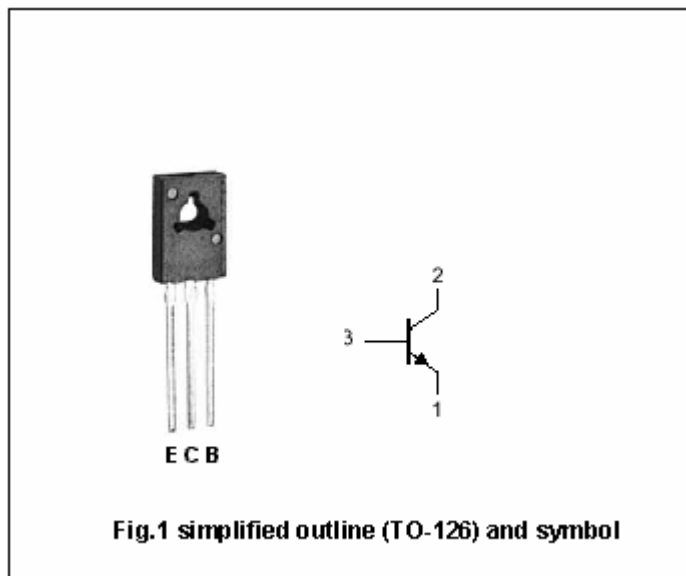
- With TO-126 package
- Complement to type 2SB1065
- Low collector saturation voltage

APPLICATIONS

- For use in 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	60	V
V_{CEO}	Collector-emitter voltage	Open base	50	V
V_{EBO}	Emitter-base voltage	Open collector	5	V
I_C	Collector current		3	A
I_{CM}	Collector current-peak		4.5	A
P_C	Collector power dissipation	$T_C=25^\circ\text{C}$	10	W
		$T_a=25^\circ\text{C}$	1.2	
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°C unless otherwise specified

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SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-emitter breakdown voltage	I _C =1mA, I _B =0	50			V
V _{(BR)CBO}	Collector-base breakdown voltage	I _C =50μA, I _E =0	60			V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =50μA, I _C =0	5			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =2A; I _B =0.2A			1.0	V
V _{BEsat}	Base-emitter saturation voltage	I _C =2A; I _B =0.2A			1.5	V
I _{CBO}	Collector cut-off current	V _{CB} =40V; I _E =0			1.0	μA
I _{EBO}	Emitter cut-off current	V _{EB} =4V; I _C =0			1.0	μA
h _{FE}	DC current gain	I _C =0.5A; V _{CE} =3V	56		390	
C _{OB}	Output capacitance	I _E =0; V _{CB} =10V, f=1MHz		40		pF
f _T	Transition frequency	I _C =0.5A; V _{CE} =5V		90		MHz

◆ h_{FE} Classifications

N	P	Q	R
56-120	82-180	120-270	180-390

PACKAGE OUTLINE

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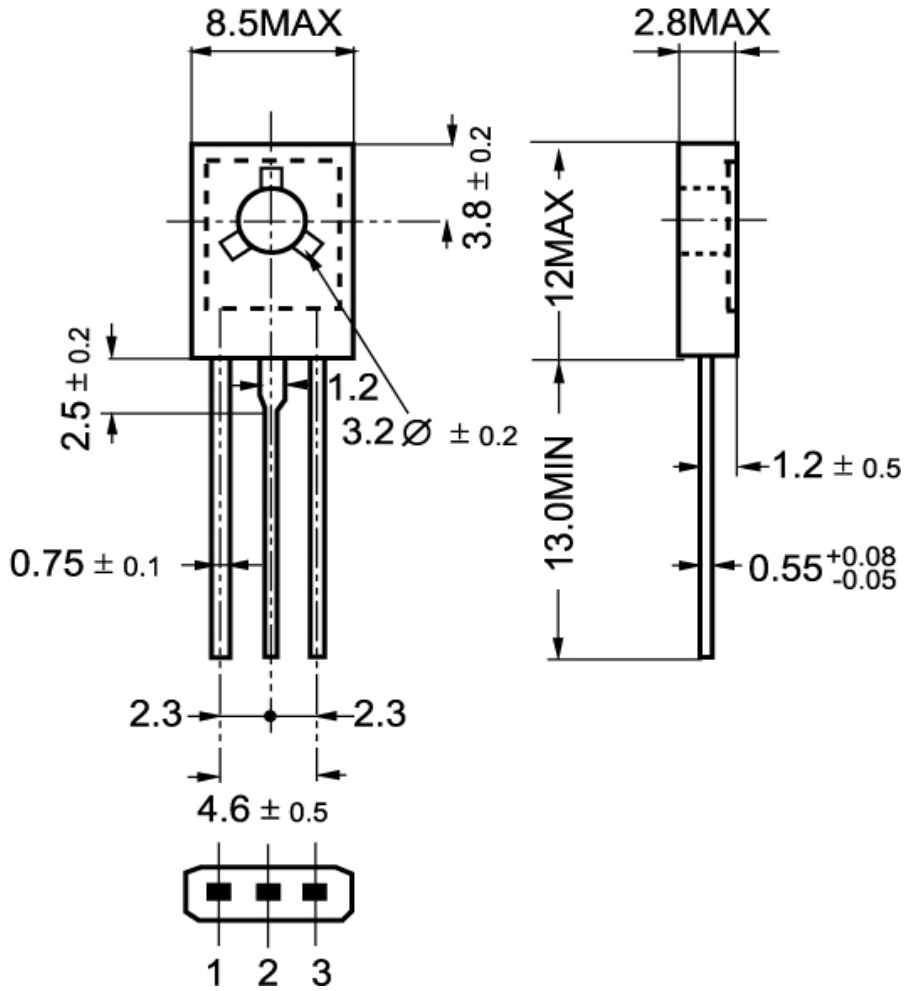


Fig.2 Outline dimensions