

Silicon PNP Power Transistors

2SB1657

DESCRIPTION

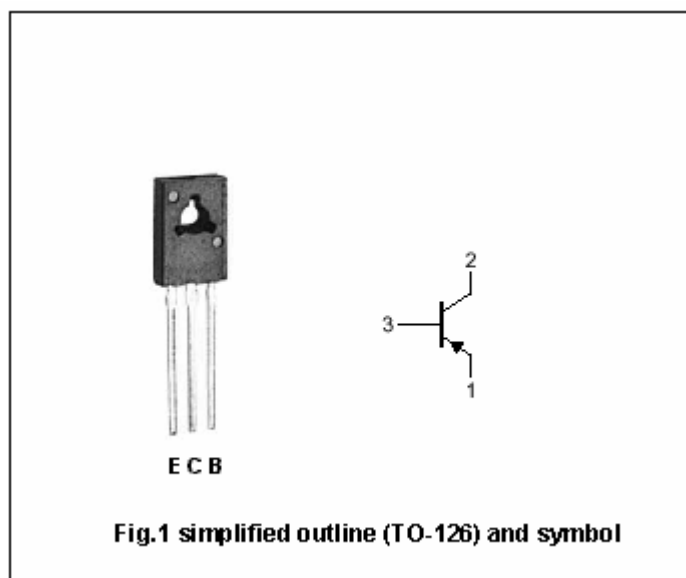
- With TO-126 package
- Low collector saturation voltage
- High DC current gain

APPLICATIONS

- For audio frequency amplifier and switching 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	-30	V
V_{CEO}	Collector-emitter voltage	Open base	-30	V
V_{EBO}	Emitter-base voltage	Open collector	-6	V
I_C	Collector current (DC)		-5	A
I_{CM}	Collector current-Peak		-8	A
I_B	Base current (DC)		-1	A
P_T	Total power dissipation	$T_a=25^\circ\text{C}$	0.1	W
		$T_C=25^\circ\text{C}$	10	
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-55~150	$^\circ\text{C}$

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CHARACTERISTICS

Tj=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C=-10mA$; $I_B=0$	-30			V
$V_{CEsat-1}$	Collector-emitter saturation voltage	$I_C=-0.5A$; $I_B=-25mA$			-0.15	V
$V_{CEsat-2}$	Collector-emitter saturation voltage	$I_C=-1A$; $I_B=-50mA$			-0.25	V
$V_{CEsat-3}$	Collector-emitter saturation voltage	$I_C=-2A$; $I_B=-100mA$			-0.40	V
$V_{CEsat-4}$	Collector-emitter saturation voltage	$I_C=-3A$; $I_B=-75mA$			-1.0	V
V_{BEsat}	Base-emitter saturation voltage	$I_C=-1A$; $I_B=-50mA$			-1.5	V
I_{CBO}	Collector cut-off current	$V_{CB}=-30V$; $I_E=0$			-0.1	μA
I_{EBO}	Emitter cut-off current	$V_{EB}=-6V$; $I_C=0$			-0.1	μA
h_{FE-1}	DC current gain	$I_C=-0.5A$; $V_{CE}=-2V$	150		600	
h_{FE-2}	DC current gain	$I_C=-3A$; $V_{CE}=-2V$	70			
f_T	Transition frequency	$I_C=-50mA$; $V_{CE}=-10V$		75		MHz
C_{OB}	Collector output capacitance	$I_E=0$; $f=1MHz$; $V_{CB}=-10V$		60		pF

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PACKAGE OUTLINE

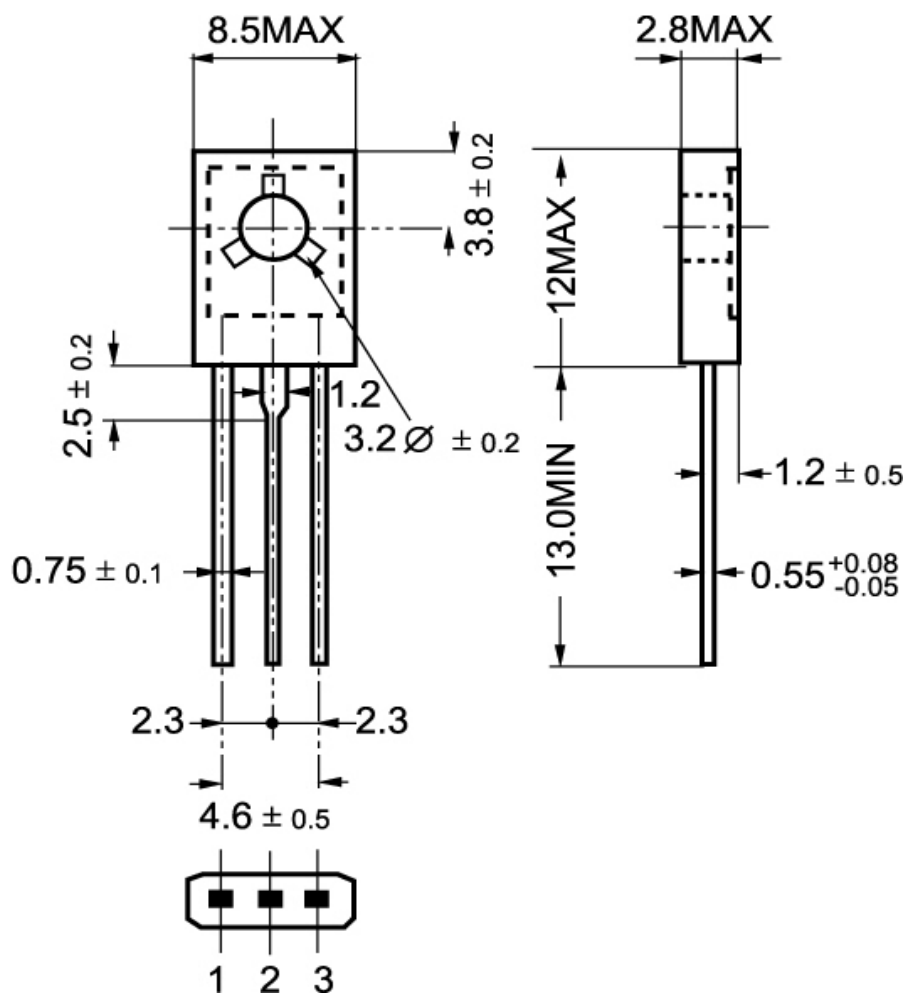


Fig.2 Outline dimensions