

Silicon NPN Power Transistors

2SD1638

DESCRIPTION

www.datasheet4u.com

- With TO-126 package
- DARLINGTON

APPLICATIONS

- For low frequency and power amplifier applications

PINNING(see Fig.2)

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

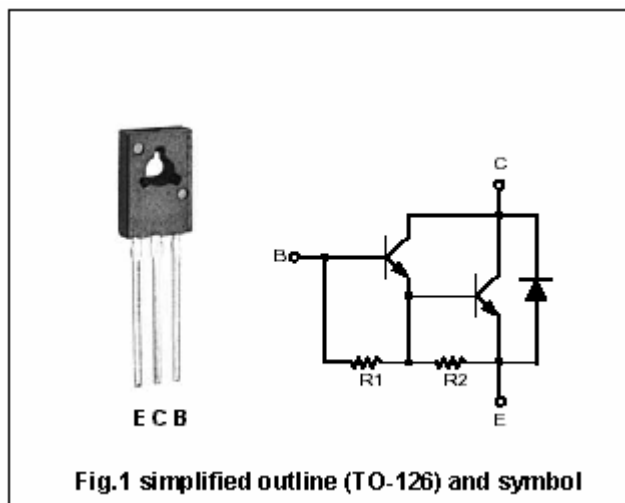


Fig.1 simplified outline (TO-126) and symbol

Absolute maximum ratings(Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	Open emitter	100	V
V <sub>CEO</sub>	Collector-emitter voltage	Open base	100	V
V <sub>EBO</sub>	Emitter-base voltage	Open collector	5	V
I <sub>C</sub>	Collector current (DC)		2	A
P <sub>D</sub>	Total 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> =25mA; I <sub>B</sub> =0	100			V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =1.0A ; I <sub>B</sub> =1mA			1.5	V
V <sub>BEsat</sub>	Base-emitter saturation voltage	I <sub>C</sub> =1.0A ; I <sub>B</sub> =1mA			2.0	V
I <sub>CEO</sub>	Collector cut-off current	V <sub>CE</sub> =100V; I <sub>B</sub> =0			0.5	mA
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =100V; I <sub>E</sub> =0			10	μA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =5V; I <sub>C</sub> =0			3	mA
h <sub>FE</sub>	DC current gain	I <sub>C</sub> =1A ; V <sub>CE</sub> =2V	1000		10000	
C <sub>OB</sub>	Collector output capacitance	f=0.1MHz ; V <sub>CB</sub> =10V		25		pF

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PACKAGE OUTLINE

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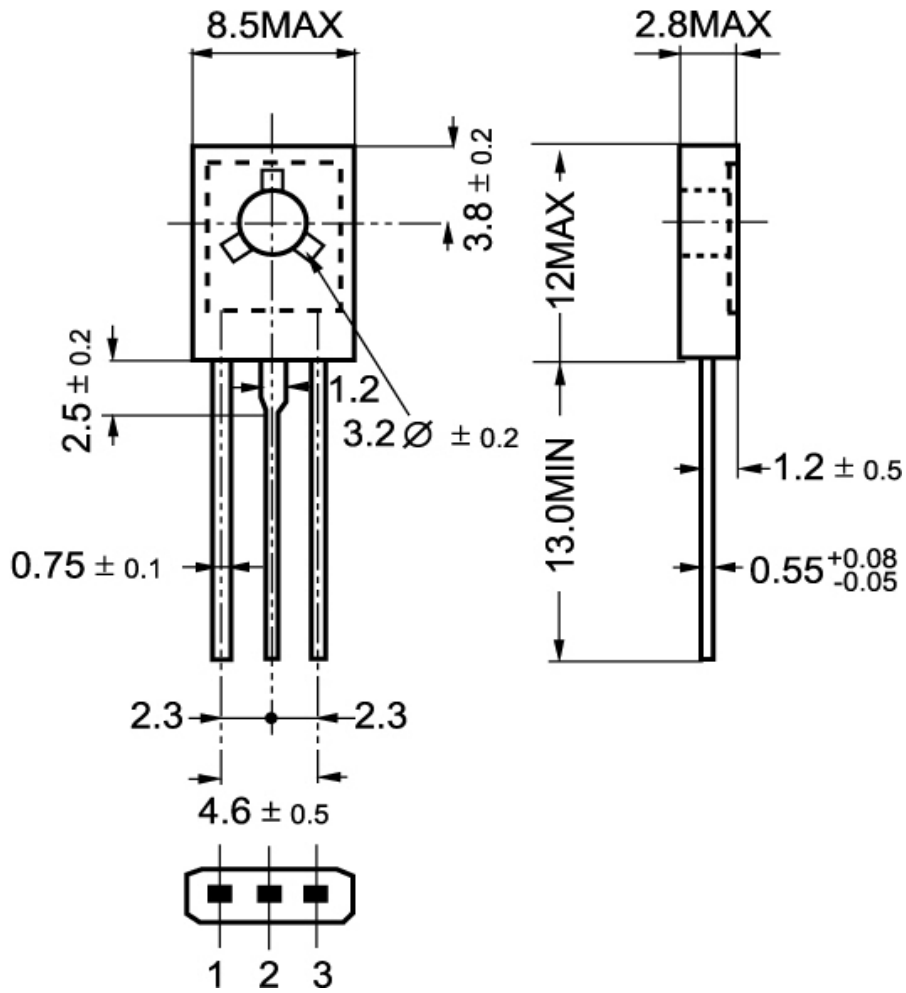


Fig.2 Outline dimensions