

**Silicon PNP Power Transistors**

**2SB1230**

**DESCRIPTION**

- With TO-3PN package
- Wide area of safe operation
- Complement to type 2SD1840
- Low collector saturation voltage

**APPLICATIONS**

- Motor drivers, relay drivers, converters and other general high-current switching applications

**PINNING**

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

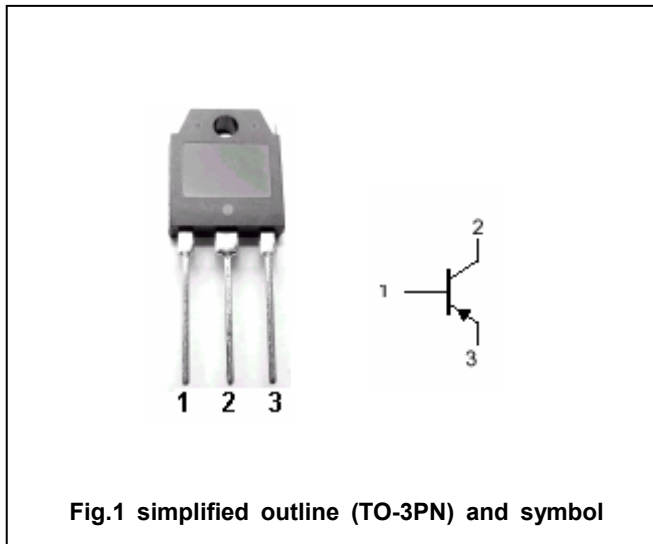


Fig.1 simplified outline (TO-3PN) and symbol

**Absolute maximum ratings(Tc=25°C)**

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	Open emitter	-110	V
V <sub>CEO</sub>	Collector-emitter voltage	Open base	-100	V
V <sub>EBO</sub>	Emitter-base voltage	Open collector	-6	V
I <sub>C</sub>	Collector current		-15	A
I <sub>CM</sub>	Collector current -peak		-25	A
I <sub>B</sub>	Base current		-5	A
P <sub>C</sub>	Collector power dissipation	T <sub>a</sub> =25°C	3.0	W
		T <sub>C</sub> =25°C	100	
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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)CEO</sub>	Collector-emitter breakdown voltage	I <sub>C</sub> =-5mA; R <sub>BE</sub> =∞	-100			V
V <sub>(BR)CBO</sub>	Collector-base breakdown voltage	I <sub>C</sub> =-1mA; I <sub>E</sub> =0	-110			V
V <sub>(BR)EBO</sub>	Emitter-base breakdown voltage	I <sub>E</sub> =-1mA; I <sub>C</sub> =0	-6			V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =-6A; I <sub>B</sub> =-0.6A			-0.8	V
V <sub>BE sat</sub>	Base-emitter saturation voltage	I <sub>C</sub> =-6A; I <sub>B</sub> =-0.6A			-1.5	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =-100V; I <sub>E</sub> =0			-100	μA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =-5V; I <sub>C</sub> =0			-100	μA
h <sub>FE-1</sub>	DC current gain	I <sub>C</sub> =-1.5A; V <sub>CE</sub> =-2V	50		140	
h <sub>FE-2</sub>	DC current gain	I <sub>C</sub> =-6A; V <sub>CE</sub> =-2V	20			

◆ h<sub>FE-1</sub> Classifications

P	Q
50-100	70-140

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PACKAGE OUTLINE

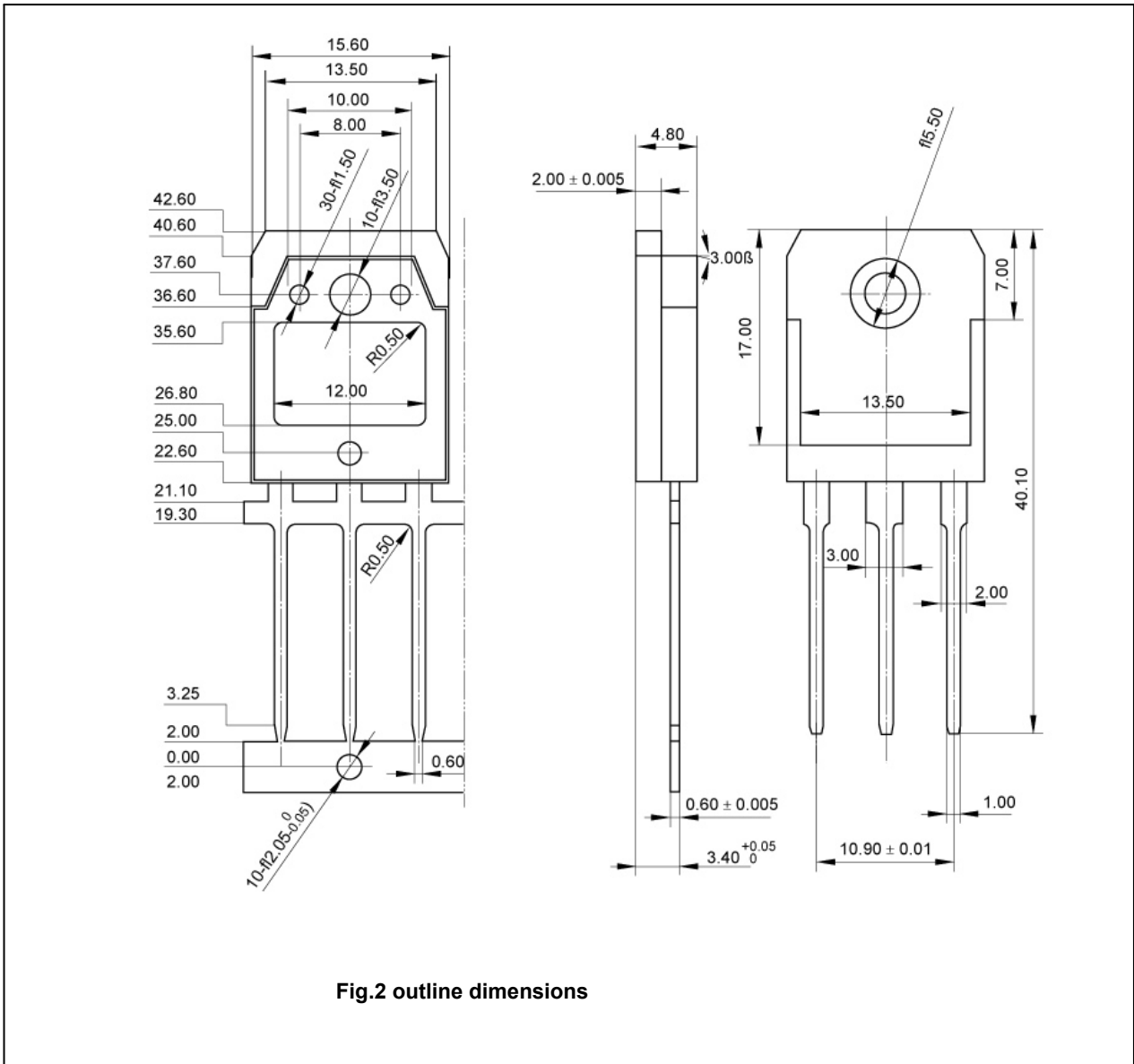


Fig.2 outline dimensions