

Silicon NPN Power Transistors

BUV28

DESCRIPTION

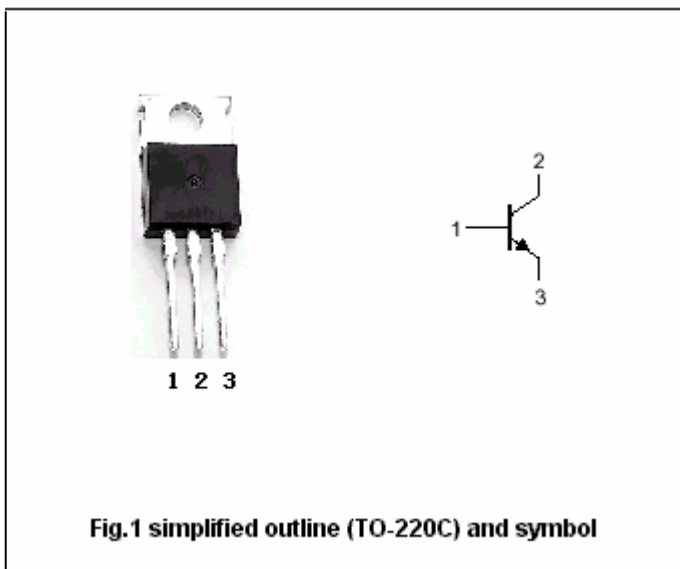
- With TO-220C package
- Low collector saturation voltage
- Fast switching speed

APPLICATIONS

- High frequency and efficiency converters
- Switching regulators
- Motor control

PINNING

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



Absolute maximum ratings (Tc=25 )

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$V_{CBO}$	Collector-base voltage	Open emitter	400	V
$V_{CEO}$	Collector-emitter voltage	Open base	200	V
$V_{EBO}$	Emitter-base voltage	Open collector	7	V
$I_C$	Collector current		10	A
$I_B$	Base current		2	A
$P_{tot}$	Total power dissipation	$T_C=25$	70	W
$T_j$	Max.operating junction temperature		150	
$T_{stg}$	Storage temperature		-65~150	

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-case}$	Thermal resistance junction case	1.785	/W

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## CHARACTERISTICS

T<sub>j</sub>=25 unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)CEO</sub>	Collector-emitter breakdown voltage	I <sub>C</sub> =30m A ; I <sub>B</sub> =0	200			V
V <sub>CEsat-1</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =3A ; I <sub>B</sub> =0.3 A			0.7	V
V <sub>CEsat-2</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =6A; I <sub>B</sub> =0.6A			1.5	V
V <sub>BEsat</sub>	Base-emitter saturation voltage	I <sub>C</sub> =6A; I <sub>B</sub> =0.6A			2.0	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =300V; I <sub>E</sub> =0			1.0	mA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =5V; I <sub>C</sub> =0			1.0	mA

Switching times resistive load

t <sub>on</sub>	Turn-on time				1.0	ms
t <sub>s</sub>	Storage time	I <sub>C</sub> =5A; V <sub>CC</sub> =150V I <sub>B1</sub> =-I <sub>B1</sub> =0.5A;			1.5	μs
t <sub>f</sub>	Fall time				0.3	μs

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PACKAGE OUTLINE

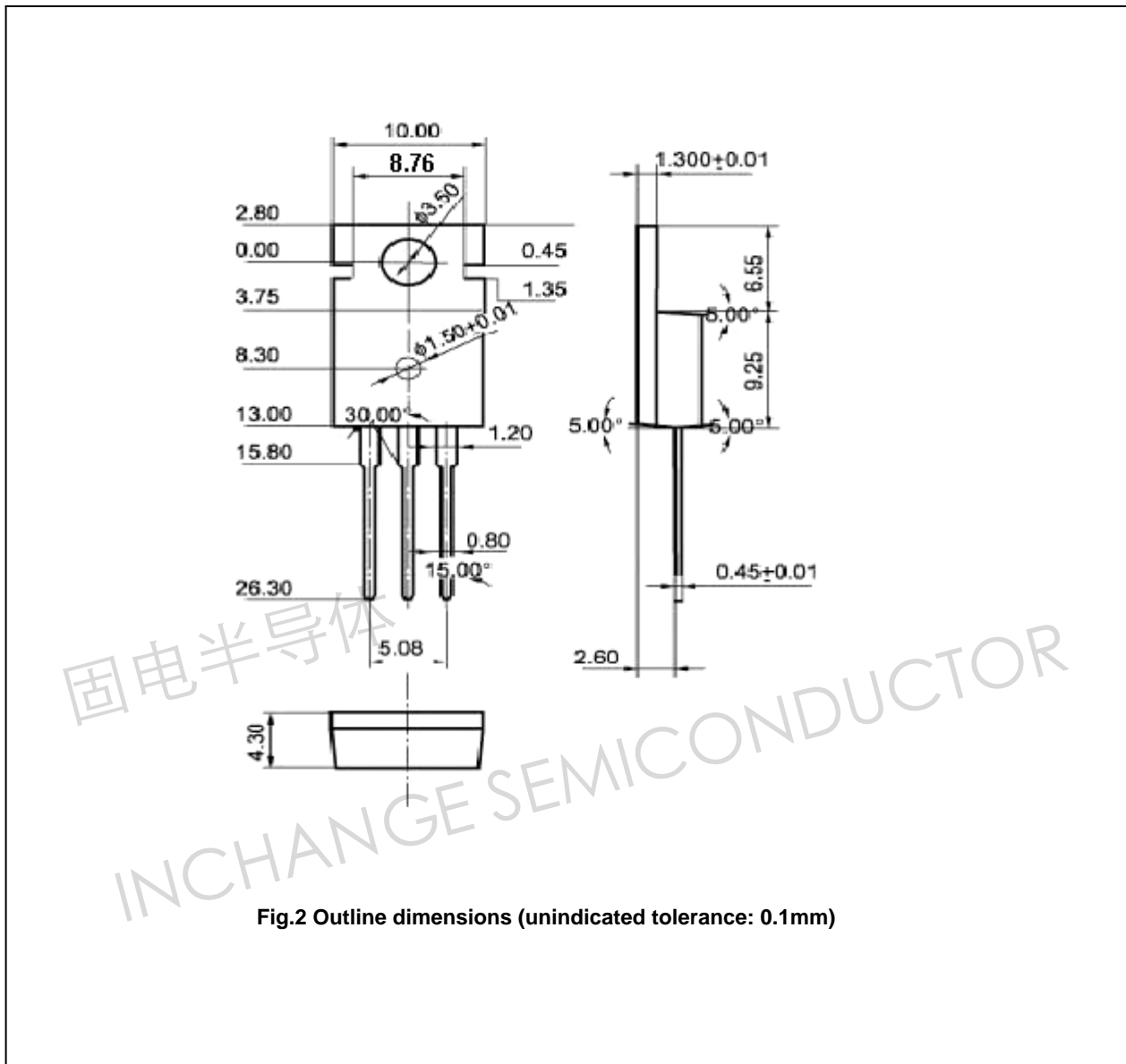


Fig.2 Outline dimensions (unindicated tolerance: 0.1mm)