

Silicon NPN Power Transistors

BUV46 BUV46A

DESCRIPTION

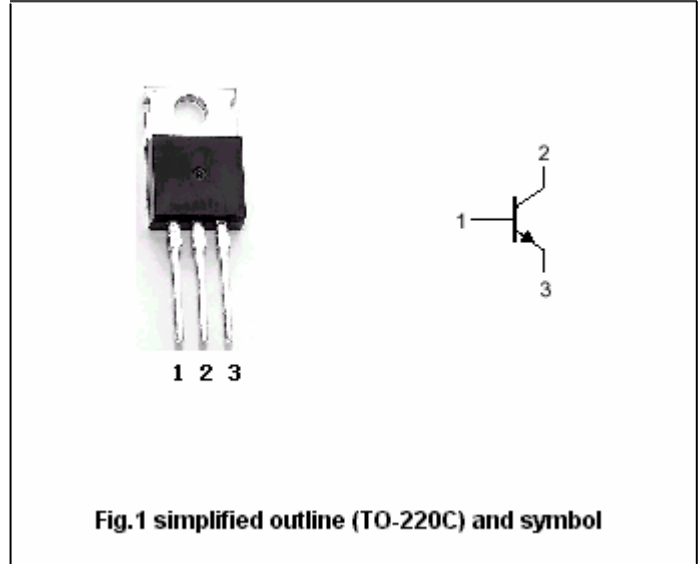
- With TO-220C package
- High voltage
- Fast switching

APPLICATIONS

- General purpose switching
- Switch mode power supplies
- Electronic ballasts for fluorescent lighting

PINNING

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

Absolute maximum ratings (T_c=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	BUV46	850	V
		BUV46A	1000	
V _{CEO}	Collector-emitter voltage	BUV46	400	V
		BUV46A	450	
V _{EBO}	Emitter-base voltage	Open collector	7	V
I _C	Collector current (DC)		5	A
I _B	Base current		3	A
P _{tot}	Total power dissipation	T _c =25°C	70	W
T _j	Max.operating junction temperature		150	°C
T _{stg}	Storage temperature		-65~150	°C

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-case}	Thermal resistance junction case	1.76	°C/W

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CHARACTERISTICS

T_j=25 °C unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEQ(SUS)}	Collector-emitter sustaining voltage	BUV46	I _C =0.1A ; I _B =0	400			V
		BUV46A		450			
V _{CEsat-1}	Collector-emitter saturation voltage	BUV46	I _C =2.5A ; I _B =0.5A			1.5	V
		BUV46A	I _C =2A ; I _B =0.4A				
V _{CEsat-2}	Collector-emitter saturation voltage	BUV46	I _C =3.5A ; I _B =0.7A			5.0	V
		BUV46A	I _C =3A ; I _B =0.6A				
V _{BEsat}	Base-emitter saturation voltage	BUV46	I _C =2.5A ; I _B =0.5A			1.3	V
		BUV46A	I _C =2A ; I _B =0.4A				
I _{CER}	Collector cut-off current		V _{CE} = V _{CEX} ; R _{BE} = 10 Ω T _C =125 °C			0.1 1.0	mA
I _{CEX}	Collector cut-off current		V _{CE} = V _{CEX} ; V _{BE} = -2.5 V T _C =125 °C			0.3 2.0	mA
I _{EBO}	Emitter cut-off current		V _{EB} =7V; I _C =0			1.0	mA

Switching times

t _{on}	Turn-on time	For BUV46 I _C =2.5A; I _{B1} =-I _{B2} =0.5A; V _{CC} =150V For BUV46A I _C =2A; I _{B1} =-I _{B2} =0.4A; V _{CC} =150V			1.0	μs
t _s	Storage time				3.0	μs
t _f	Fall time				0.8	μs

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PACKAGE OUTLINE

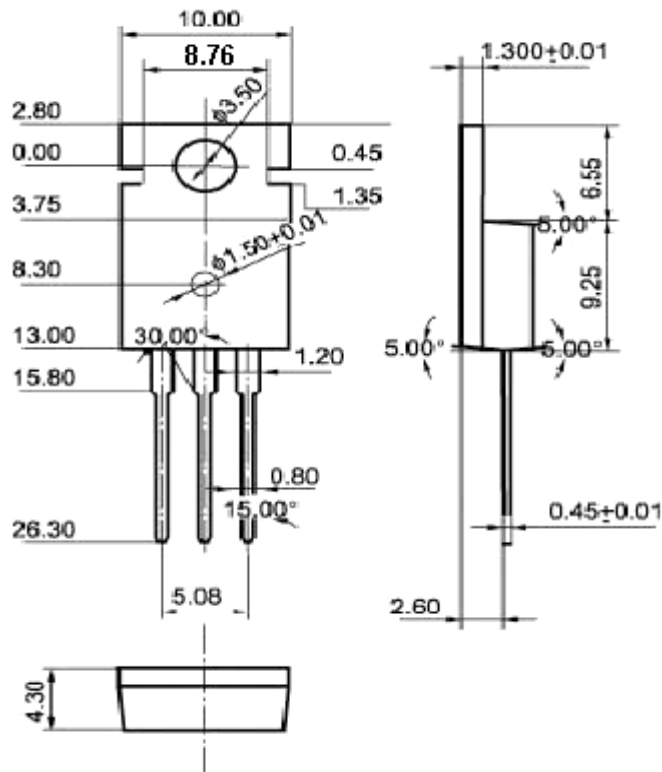


Fig.2 Outline dimensions (unindicated tolerance: 0.1mm)