

Silicon NPN Power Transistors

BU1706AX

DESCRIPTION

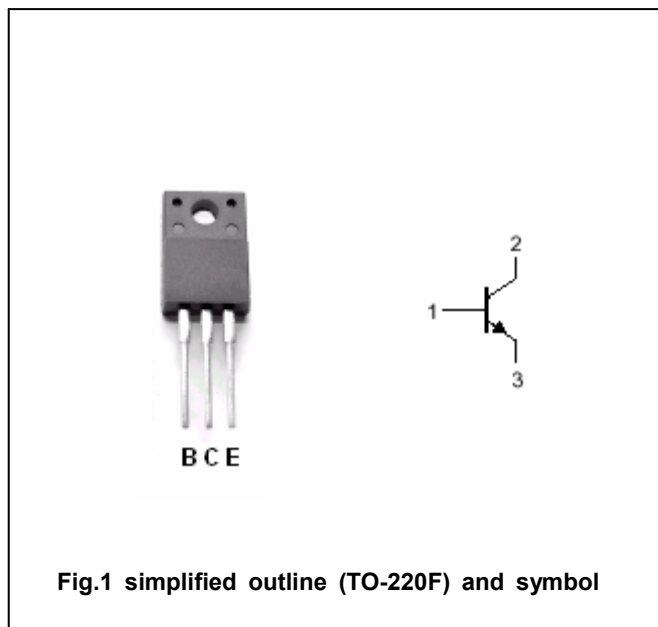
- With TO-220F package
- High voltage
- High speed switching

APPLICATIONS

- For use in high frequency electronic lighting ballast applications.

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

Absolute maximum ratings ($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	1750	V
V_{CEO}	Collector-emitter voltage	Open base	850	V
V_{EBO}	Emitter-base voltage	Open collector	7.5	V
I_C	Collector current		5	A
I_{CM}	Collector current (peak)		8	A
I_B	Base current		3	A
I_{BM}	Base current (peak)		5	A
P_T	Total power dissipation	$T_C=25^\circ\text{C}$	32	W
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-40~150	$^\circ\text{C}$

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CHARACTERISTICS

T_j=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO(SUS)}	Collector-emitter sustaining voltage	I _C =100mA ; I _B =0; L=25mH	750			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =1.5A; I _B =0.3A			1.0	V
V _{BEsat}	Base-emitter saturation voltage	I _C =1.5A; I _B =0.3A			1.3	V
I _{CES}	Collector cut-off current	V _{CE} =rated; V _{BE} =0 T _j =125℃			1.0 2.0	mA
I _{EBO}	Emitter cut-off current	V _{EB} =12V; I _C =0			1.0	mA
h _{FE-1}	DC current gain	I _C =5mA ; V _{CE} =10V	8			
h _{FE-2}	DC current gain	I _C =0.4A ; V _{CE} =3V	12	18	35	
h _{FE-3}	DC current gain	I _C =1.5A ; V _{CE} =1V	5	7		

Switching times

t _{on}	Turn-on time	I _C =1.5A ; I _{B1} =-I _{B2} =0.3A		1.1	1.5	μs
t _s	Storage time			5.0	6.5	μs
t _f	Fall time			0.75	1.0	μs

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PACKAGE OUTLINE

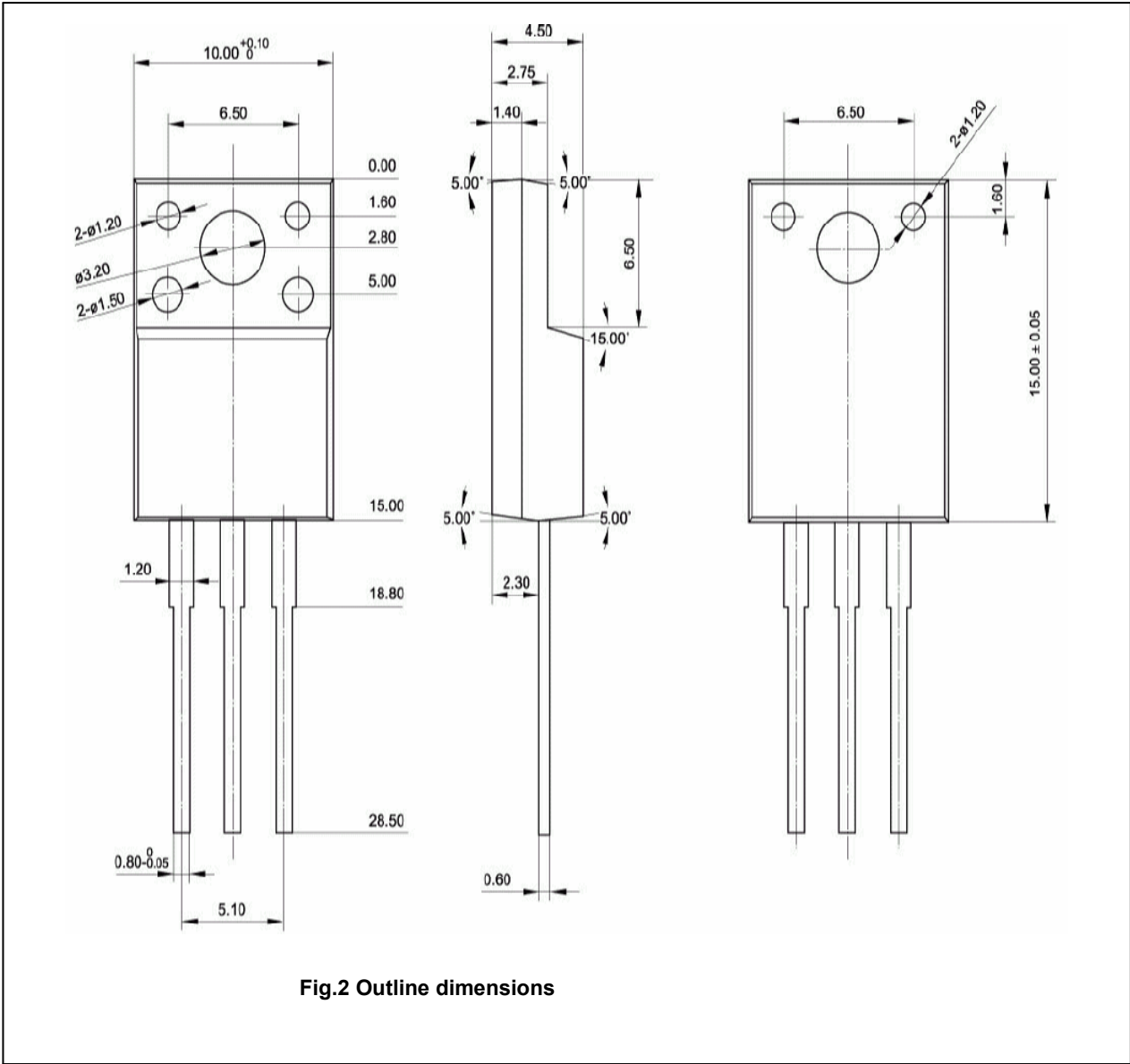


Fig.2 Outline dimensions