

**Silicon NPN Power Transistors**

**BU1506DX**

**DESCRIPTION**

- With TO-220F package
- High voltage
- High speed switching
- Built-in damper diode.

**APPLICATIONS**

- For use in horizontal deflection circuits of colour TV receivers.

**PINNING**

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

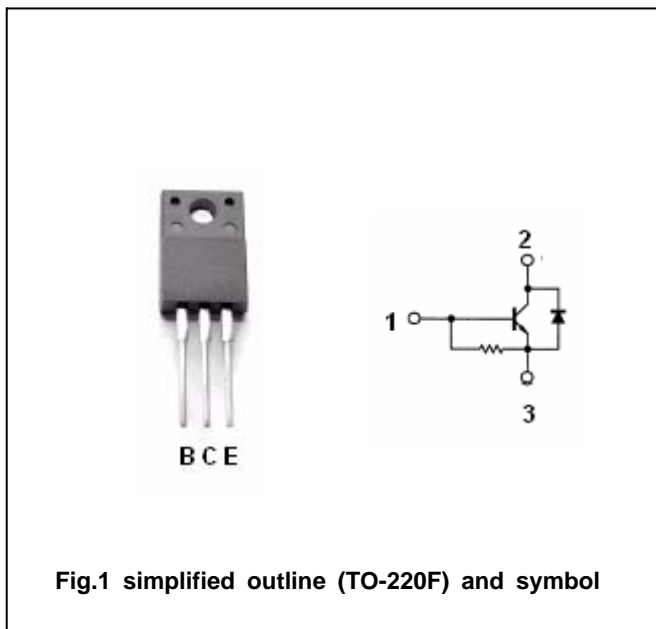


Fig.1 simplified outline (TO-220F) and symbol

**Absolute maximum ratings (Ta=25 )**

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$V_{CBO}$	Collector-base voltage	Open emitter	1500	V
$V_{CEO}$	Collector-emitter voltage	Open base	700	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		8	A
$P_C$	Collector dissipation	$T_C=25$	32	W
$T_j$	Junction temperature		150	
$T_{stg}$	Storage temperature		-40~150	

## Silicon NPN Power Transistors

## BU1506DX

## CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)EBO</sub>	Emitter-base breakdown voltage	I <sub>E</sub> =600mA ; I <sub>C</sub> =0	7.5	13.5		V
V <sub>CEO(SUS)</sub>	Collector-emitter sustaining voltage	I <sub>C</sub> =100mA ; I <sub>B</sub> =0; L=25mH	700			V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =3A; I <sub>B</sub> =0.79A			5.0	V
V <sub>BEsat</sub>	Base-emitter saturation voltage	I <sub>C</sub> =3A; I <sub>B</sub> =0.79A			1.1	V
I <sub>CES</sub>	Collector cut-off current	V <sub>CE</sub> =rated; V <sub>BE</sub> =0 T <sub>j</sub> =125			1.0 2.0	mA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =7.5V; I <sub>C</sub> =0	90		180	mA
h <sub>FE-1</sub>	DC current gain	I <sub>C</sub> =0.3A ; V <sub>CE</sub> =5V		12		
h <sub>FE-2</sub>	DC current gain	I <sub>C</sub> =3.0A ; V <sub>CE</sub> =5V	3.8	5.5	7.5	
V <sub>F</sub>	Diode forward voltage	I <sub>F</sub> =3.0A		1.6	2.0	V
C <sub>C</sub>	Collector output capacitance	I <sub>E</sub> =0, f=1MHz; V <sub>CB</sub> =10V		47		pF

Silicon NPN Power Transistors

BU1506DX

PACKAGE OUTLINE

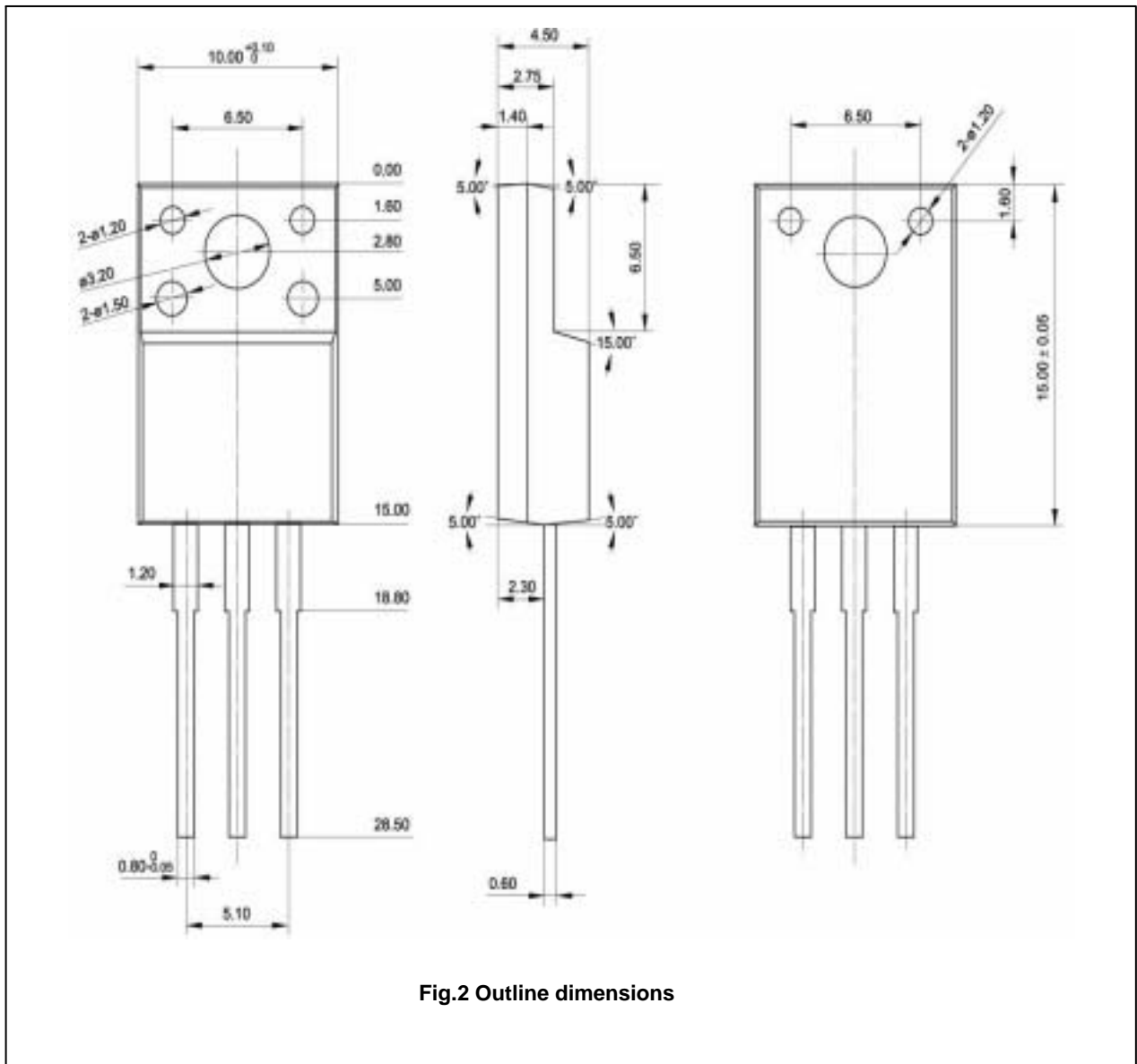


Fig.2 Outline dimensions