

Silicon NPN Power Transistors

BU506D

DESCRIPTION

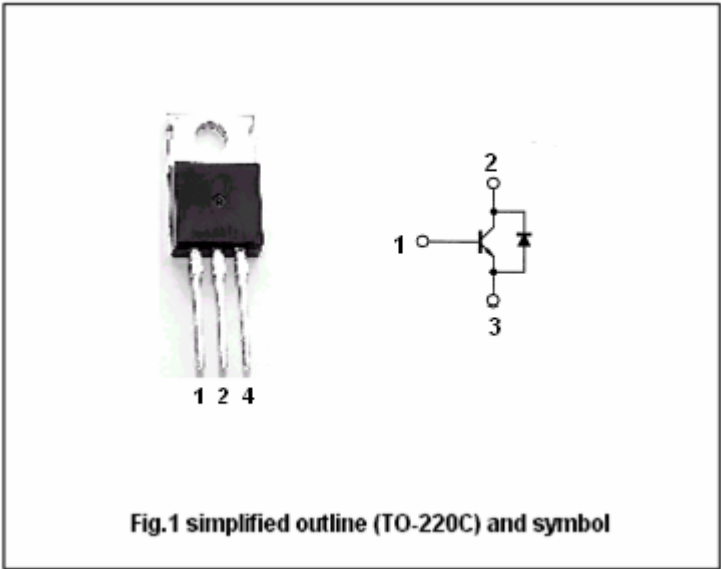
- With TO-220C package
- High voltage
- Fast switching speed
- With integrated efficiency diode

APPLICATIONS

- Horizontal deflection circuits of colour TV receivers.
- Line-operated switch-mode applications.

PINNING

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



Absolute maximum ratings (Ta=25°C)

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	6	V
I _C	Collector current (DC)		5	A
I _{CM}	Collector current (Pulse)		8	A
I _B	Base current		3	A
I _{BM}	Base current(peak)		5	A
P _C	Collector power dissipation	T _C =25°C	100	W
T _j	Junction temperature		150	°C
T _{stg}	Storage temperature		-65-150	°C

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CHARACTERISTICS

Tj=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-emitter sustaining voltage	$I_C=100mA$; $I_B=0$; $L=25mH$	700			V
V_{CEsat}	Collector-emitter saturation voltage	$I_C=3A$; $I_B=1.33A$			1.0	V
V_{BEsat}	Base-emitter saturation voltage	$I_C=3A$; $I_B=1.33A$			1.3	V
h_{FE}	DC current gain	$I_C=0.1A$; $V_{CE}=5V$	6	13	30	
I_{CES}	Collector cut-off current	$V_{CE}=rated$; $V_{BE}=0$ $T_C=125^\circ C$			0.5 1.0	mA
I_{EBO}	Emitter cut-off current	$V_{EB}=6V$; $I_C=0$			200	mA
V_F	Diode forward voltage	$I_F=3A$;		1.5	2.2	V

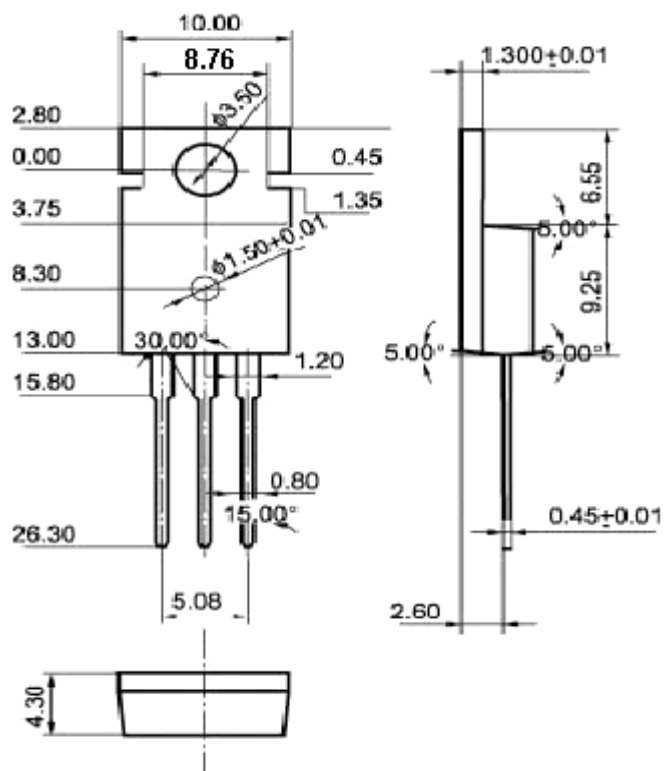
Switching times

t_s	Storage time	$I_{CM} = 3A$; $I_{B(end)} = 1A$ $L_B = 12\mu H$		6.5		μs
t_f	Fall time			0.7		μs

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PACKAGE OUTLINE

Fig.2 Outline dimensions (unindicated tolerance: $\pm 0.10\text{mm}$)