Silicon NPN Power Transistors BU506

DESCRIPTION

·With TO-220C package
·High voltage
·High-speed switching

APPLICATIONS

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

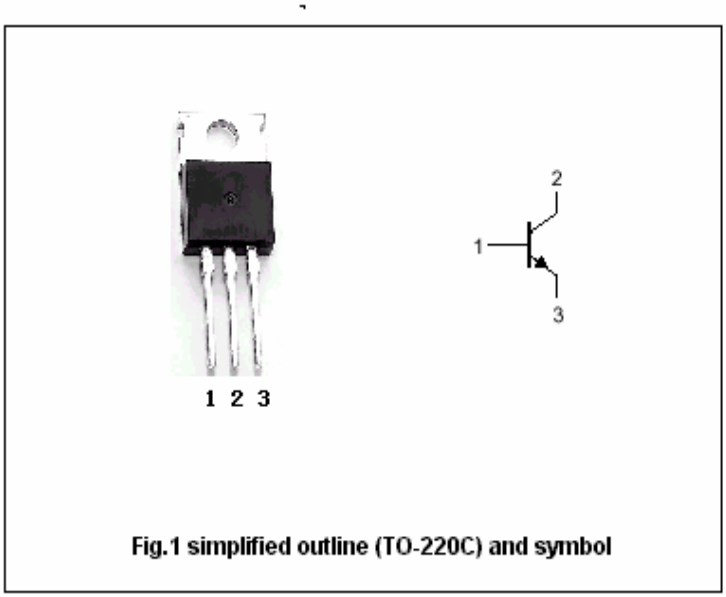

Fig.1 simplified outline (TO-220C) and symbol

PINNING

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

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	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□	100	W
T_j	Junction temperature		150	□
T_{stg}	Storage temperature		-65-150	□

CHARACTERISTICS

Tj=25□ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-emitter sustaining voltage	I_C=100mA; I_B=0	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□			0.5 1.0	mA
I_{EBO}	Emitter cut-off current	V_{EB}=6V; I_C=0			10	mA

Switching times

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

PACKAGE OUTLINE

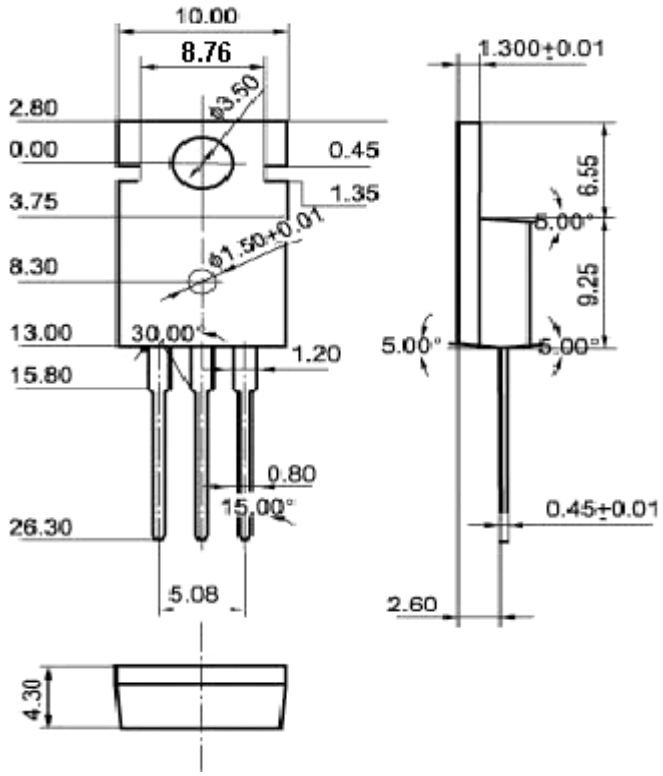

Fig.2 Outline dimensions (unindicated tolerance: ±0.10mm)