

Silicon NPN Power Transistors

BU506DF

DESCRIPTION

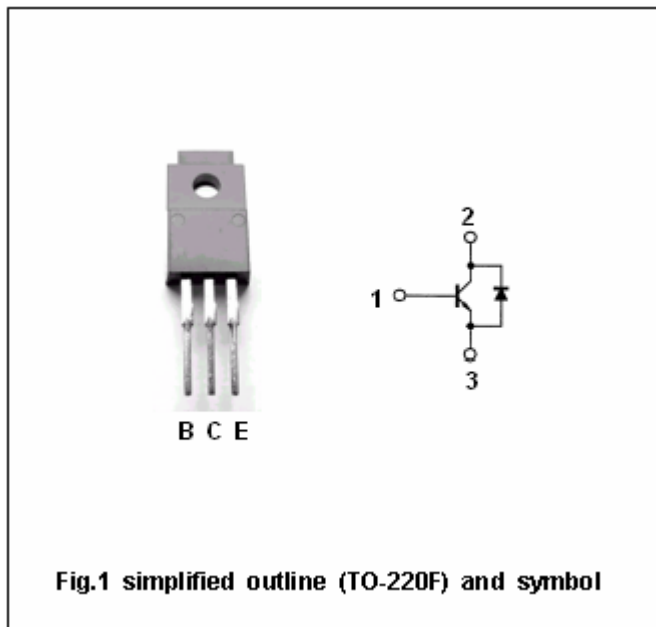
- With TO-220Fa package
- High voltage
- High-speed switching
- With integrated efficiency diode

APPLICATIONS

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

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
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 _T	Total power dissipation	T _C =25	20	W
T _j	Junction temperature		150	
T _{stg}	Storage temperature		-65-150	

Silicon NPN Power Transistors

BU506DF

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	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-1}	DC current gain	I _C =0.1A; V _{CE} =5V	6	13	30	
h _{FE-2}	DC current gain	I _C =3A; V _{CE} =5V	2.25			
I _{CES}	Collector cut-off current	V _{CE} =rated; V _{BE} =0 T _j =125			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} = 3 A; I _{B(end)} = 1 A L _B = 12 μ H		6.5		μ s
t _f	Fall time			0.7		μ s

PACKAGE OUTLINE

