

Silicon NPN Power Transistors

BU508DF

DESCRIPTION

- With TO-3PFa package
- High voltage,high speed
- Built-in damper diode

APPLICATIONS

- For use in horizontal deflection circuits of colour TV receivers

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

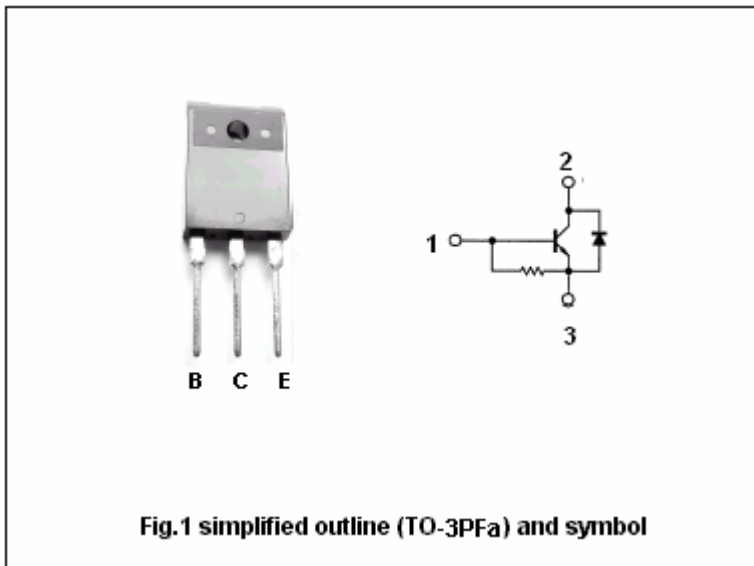


Fig.1 simplified outline (TO-3PFa) and symbol

ABSOLUTE MAXIMUM RATINGS(T_c=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	5	V
I _C	Collector current (DC)		8	A
I _{CP}	Collector current (Pulse)		15	A
I _B	Base current (DC)		4	A
I _{BM}	Base current (Pulse)		6	A
P _{tot}	Total power dissipation	T _c =25℃	34	W
T _j	Max.operating junction temperature		150	℃
T _{stg}	Storage temperature		-65~150	℃

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CHARACTERISTICS

T_j=25 °C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEQ(SUS)}	Collector-emitter sustaining voltage	I _C =100mA ; I _B =0, L=25mH	700			V
V _{CE(sat)}	Collector-emitter saturation voltage	I _C =4.5A; I _B =1.6A			1.0	V
V _{BE(sat)}	Base-emitter saturation voltage	I _C =4.5A ; I _B =2A			1.1	V
I _{EBO}	Emitter cut-off current	V _{EB} =5V; I _C =0			300	mA
I _{CES}	Collector cut-off current	V _{CB} =BV _{CB0} I _E =0 T _C =125 °C			1.0 2.0	mA
h _{FE}	DC current gain	I _C =0.5A ; V _{CE} =5V	10		30	
f _T	Transition frequency	I _C =0.1A ; V _{CE} =5V		7		MHz
C _{OB}	Output capacitance	I _E =0 ; V _{CB} =10V; f=1MHz		125		pF
V _F	Diode forward voltage	I _F =4.5A		1.6	2.0	V

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PACKAGE OUTLINE



Fig.2 Outline dimensions (unindicated tolerance: $\pm 0.30\text{mm}$)