

Silicon NPN Power Transistors

BU505DF

DESCRIPTION

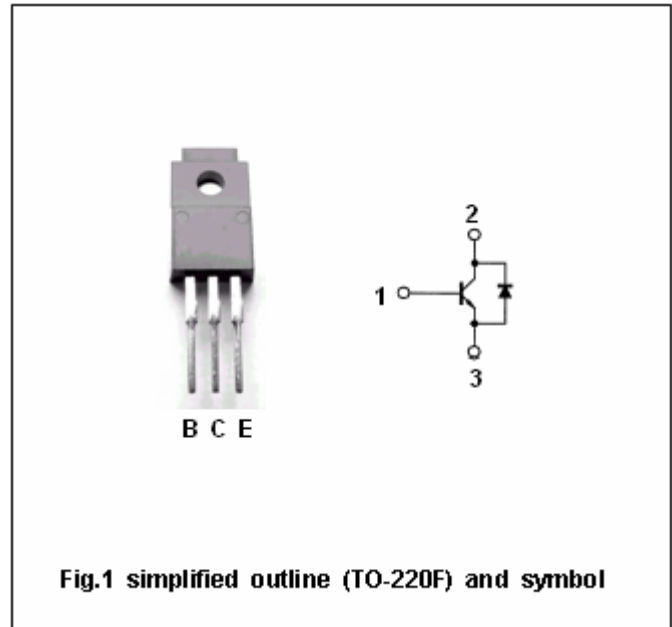
- With TO-220Fa package
- High voltage,high speed
- With integrated efficiency diode

APPLICATIONS

- For horizontal deflection circuits of color TV receivers.

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	5	V
I_C	Collector current		2.5	A
I_{CM}	Collector current (peak)		4	A
I_B	Base current		2	A
I_{BM}	Base current(peak)		4	A
P_{tot}	Total power dissipation	$T_C=25$	20	W
T_j	Max.operating junction temperature		150	
T_{stg}	Storage temperature		-65~150	

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th j-a}$	Thermal resistance from junction to ambient	55	K/W

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CHARACTERISTICS

T_j=25 unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEQ(SUS)}	Collector-emitter sustaining voltage	I _C =0.1 A ; I _B =0; L=25mH	700			V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =600mA ; I _C =0	7.5	13.5		V
V _{CEsat}	Collector-emitter saturation voltage	I _C =2A ; I _B =0.9 A			1.0	V
V _{BEsat}	Base-emitter saturation voltage	I _C =2A ; I _B =0.9 A			1.3	V
I _{CES}	Collector cut-off current	V _{CE} =1500V; V _{BE} =0; T _C =125			0.15 1.0	mA
h _{FE-1}	DC current gain	I _C =0.1A ; V _{CE} =5V	6		30	
h _{FE-2}	DC current gain	I _C =2A ; V _{CE} =5V	2.22			
V _F	Diode forward voltage	I _F =2A			1.8	V
f _T	Transition frequency	I _C =0.1A ; V _{CE} =5V		7		MHz
C _C	Collector output capacitance	I _E =0; f=1MHz; V _{CB} =10V		65		pF

PACKAGE OUTLINE

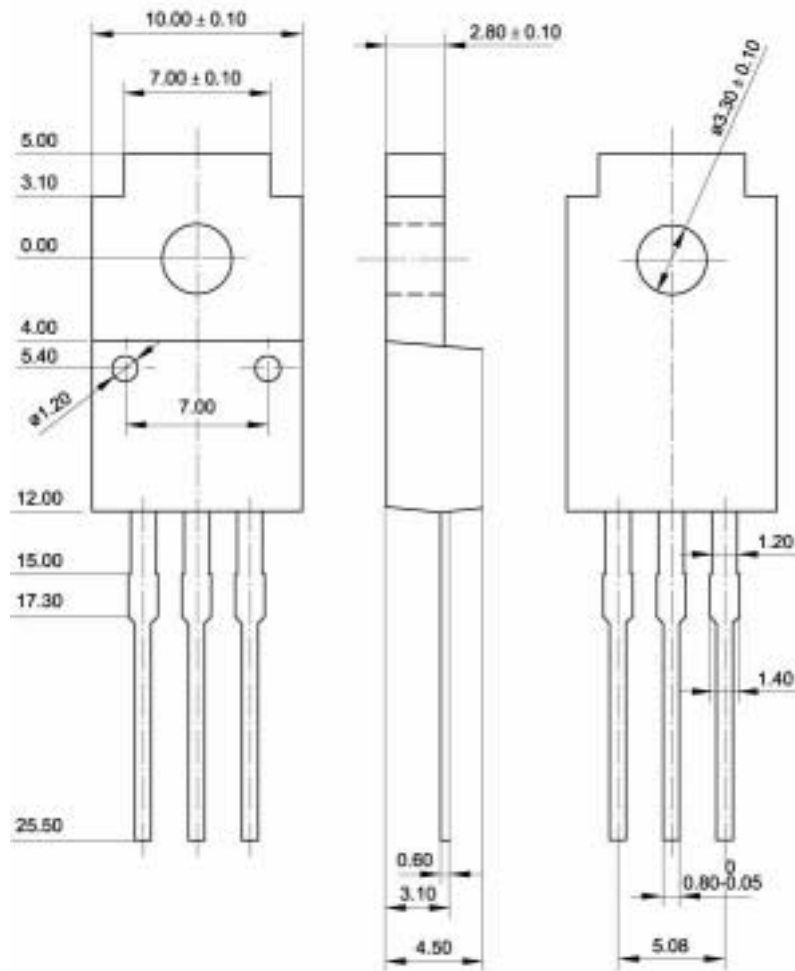


Fig.2 Outline dimensions (unindicated tolerance: ± 0.15 mm)