

Silicon NPN Power Transistors

BUX84F BUX85F

DESCRIPTION

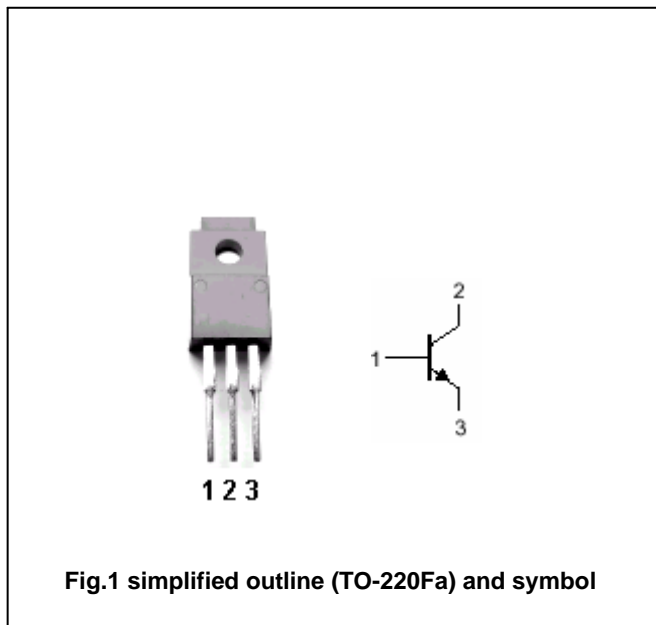
- With TO-220Fa package
- High voltage ,high speed

APPLICATIONS

- Converters
- Inverters
- Switching regulators
- Motor controls systems

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter



Absolute maximum ratings (Ta=25)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	BUX84F	800	V
		BUX85F	1000	
V _{CEO}	Collector-emitter voltage	BUX84F	400	V
		BUX85F	450	
V _{EBO}	Emitter-base voltage	Open collector	10	V
I _C	Collector current		2	A
I _{CM}	Collector current-peak		3	A
I _B	Base current		0.75	A
I _{BM}	Base current-peak		1	A
P _{tot}	Total power dissipation	T _C =25	18	W
T _j	Junction temperature		150	
T _{stg}	Storage temperature		-65~150	

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-a}	Thermal resistance 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 _{CEO(SUS)}	Collector-emitter sustaining voltage	BUX84F	I _C =100mA ; I _B =0; L=25mH			V
		BUX85F				
V _{CEsat-1}	Collector-emitter saturation voltage	I _C =0.3A ; I _B =0.03A			0.8	V
V _{CEsat-2}	Collector-emitter saturation voltage	I _C =1A ; I _B =0.2A			1	V
V _{BEsat}	Base-emitter saturation voltage	I _C =1A ; I _B =0.2A			1.1	V
I _{CES}	Collector cut-off current	BUX84F	V _{CEs} =800V; V _{BE} =0 T _j =125		0.2 1.5	mA
		BUX85F				
I _{EBO}	Emitter cut-off current	V _{EB} =5V; I _C =0			1.0	mA
h _{FE-1}	DC current gain	I _C =0.1A ; V _{CE} =5V	20		100	
h _{FE-2}	DC current gain	I _C =0.5A ; V _{CE} =5V	15			
f _T	Transition frequency	I _C =0.2A ; V _{CE} =10V; f=1.0MHz		20		MHz

Switching times

t _{on}	Turn-on time	I _C =1A ; V _{CC} =250V I _{B1} =0.2A; I _{B2} =-0.4A		0.2	0.5	μs
t _s	Storage time			2	3.5	μs
t _f	Fall time			0.4		μs

PACKAGE OUTLINE

