

Silicon NPN Power Transistors

BUV27

DESCRIPTION

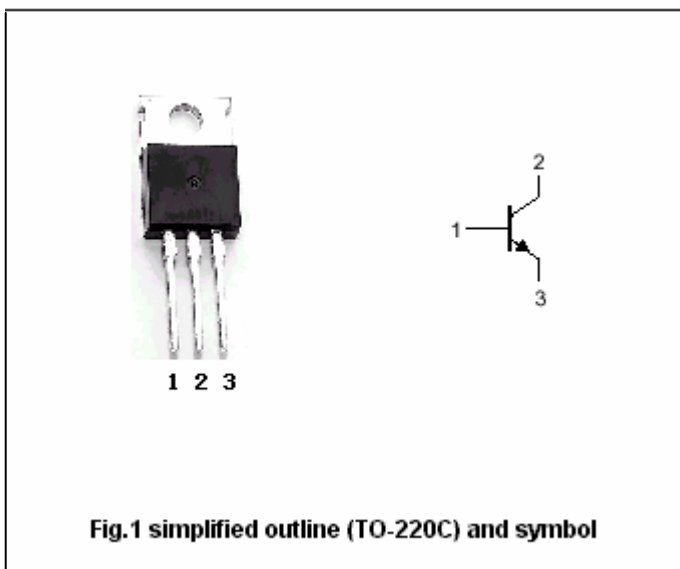
- With TO-220C package
- Low collector saturation voltage
- Fast switching speed

APPLICATIONS

- For use in high frequency and efficiency converters, switching regulators and motor control

PINNING

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



Absolute maximum ratings (Tc=25)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	Open emitter	240	V
V _{CEO}	Collector-emitter voltage	Open base	120	V
V _{EBO}	Emitter-base voltage	Open collector	7	V
I _C	Collector current (DC)		12	A
I _{CM}	Collector current (peak)		20	A
I _B	Base current		4	A
I _{BM}	Base current (peak)		6	A
P _{tot}	Total power dissipation	T _C =25	85	W
T _j	Max.operating junction temperature		175	
T _{stg}	Storage temperature		-65~175	

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-case}	Thermal resistance junction case	1.76	/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	I _C =0.2 A ; I _B =0; L=25mH	120			V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =50mA; I _C =0	7		30	V
V _{CEsat-1}	Collector-emitter saturation voltage	I _C =4A ; I _B =0.4 A			0.7	V
V _{CEsat-2}	Collector-emitter saturation voltage	I _C =8A; I _B =0.8A			1.5	V
V _{BEsat}	Base-emitter saturation voltage	I _C =8A; I _B =0.8A			2	V
I _{CEX}	Collector cut-off current	V _{CE} =240V; V _{BE} = -1.5 V T _C =125			1	mA
I _{EBO}	Emitter cut-off current	V _{EB} =5V; I _C =0			1	mA
Switching times resistive load						
t _{on}	Turn-on time	I _C =8A; I _{B1} =0.8A; V _{CC} =90V V _{BE} = - 6V; R _{BB} = 3.75		0.4	0.8	ms
t _s	Storage time			0.5	1.2	μs
t _f	Fall time			0.12	0.25	μs

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PACKAGE OUTLINE

