

Silicon NPN Power Transistors

BUJ403A

DESCRIPTION

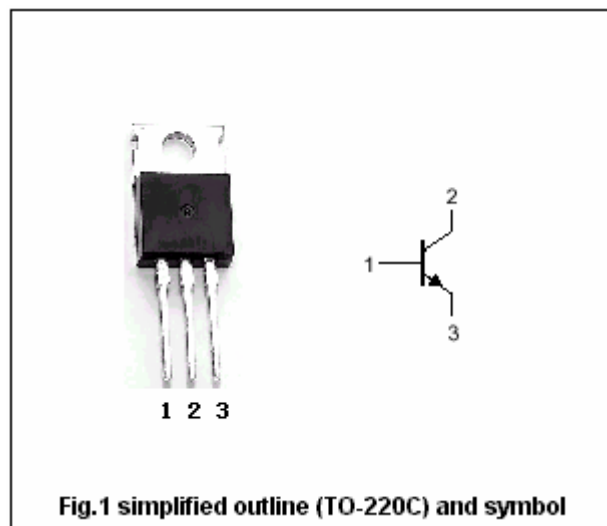
- With TO-220C package
- High voltage,high speed

APPLICATIONS

- Designed for use in high frequency electronic lighting ballast applications, converters,inverters,switching regulators, motor control systems,etc

PINNING

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



Absolute maximum ratings (Ta=25℃)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	Open emitter	1200	V
V _{CEO}	Collector-emitter voltage	Open base	550	V
V _{EBO}	Emitter-base voltage	Open collector	7	V
I _C	Collector current		6	A
I _{CM}	Collector current-peak		10	A
I _B	Base current		3	A
I _{BM}	Base current-peak		5	A
P _{tot}	Total power dissipation	T _{mb} ≤25℃	100	W
T _j	Max.operating junction temperature		150	℃
T _{stg}	Storage temperature		-65~150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-mb}	Thermal resistance junction mounting base	1.25	K/W

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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 =10mA ; I _B =0 ; L=25mH	550			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =2A ; I _B =0.4 A		0.15	1.0	V
V _{BEsat}	Base-emitter saturation voltage	I _C =2A ; I _B =0.4 A		0.91	1.5	V
I _{CEO}	Collector cut-off current	V _{CE} =550V; I _B =0;			0.1	mA
I _{CES}	Collector cut-off current	V _{CE} =V _{CESMmax} ; V _{BE} =0; T _j =125 °C			1.0 2.0	mA
I _{EBO}	Emitter cut-off current	V _{EB} =7V; I _C =0			0.1	mA
h _{FE-1}	DC current gain	I _C =1mA; V _{CE} =5V	13			
h _{FE-2}	DC current gain	I _C =500mA; V _{CE} =5V	20		47	
h _{FEsat-1}	DC current gain	I _C =2A; V _{CE} =5V	13		25	
h _{FEsat-2}	DC current gain	I _C =3A; V _{CE} =5V		15.5		

Switching times resistive load

t _{on}	Turn-on time	I _C =2.5A; I _{B1} =-I _{B2} =0.5 A R _L =75Ω, V _{BB2} =4V			0.5	μs
t _s	Storage time				3.0	μs
t _f	Fall time				0.3	μs

