

Silicon NPN Power Transistors

BUL56B

DESCRIPTION

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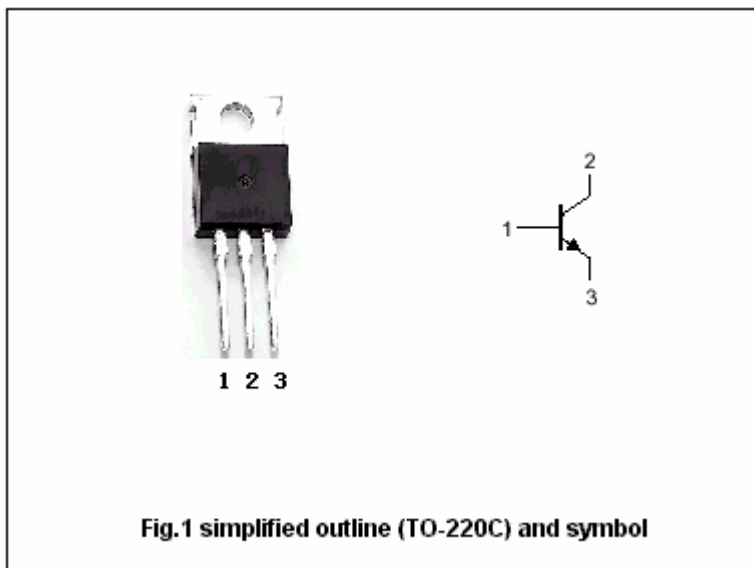
- With TO-220C package
- High voltage
- Fast switching
- High energy rating

APPLICATIONS

- Designed for use in electronic ballast applications

PINNING

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



Absolute maximum ratings (Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	Open emitter	250	V
V <sub>CEO</sub>	Collector-emitter voltage	Open base	100	V
V <sub>EBO</sub>	Emitter-base voltage	Open collector	10	V
I <sub>C</sub>	Collector current (DC)		18	A
I <sub>CM</sub>	Collector current-Peak		25	A
I <sub>B</sub>	Base current		5	A
P <sub>tot</sub>	Total power dissipation	T <sub>C</sub> =25°C	85	W
T <sub>stg</sub>	Operating and storage temperature		-55~150	°C

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## CHARACTERISTICS

T<sub>j</sub>=25°C unless otherwise specified

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SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>CEO(SUS)</sub>	Collector-emitter sustaining voltage	I <sub>C</sub> =10mA ; I <sub>B</sub> =0	100			V
V <sub>(BR)CBO</sub>	Collector-base breakdown voltage	I <sub>C</sub> =1mA ; I <sub>E</sub> =0	250			V
V <sub>(BR)EBO</sub>	Emitter-base breakdown voltage	I <sub>E</sub> =1mA ; I <sub>C</sub> =0	10			V
V <sub>CEsat-1</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =1A ; I <sub>B</sub> =0.1A			0.2	V
V <sub>CEsat-2</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =7A ; I <sub>B</sub> =0.7A			0.6	V
V <sub>CEsat-3</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =12A ; I <sub>B</sub> =1.2A			1.2	V
V <sub>BEsat-1</sub>	Base-emitter saturation voltage	I <sub>C</sub> =7A ; I <sub>B</sub> =0.7A			1.2	V
V <sub>BEsat-2</sub>	Base-emitter saturation voltage	I <sub>C</sub> =12A ; I <sub>B</sub> =1.2A			1.8	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =250V ; I <sub>E</sub> =0 T <sub>C</sub> =125°C			10 100	μA
I <sub>CEO</sub>	Collector cut-off current	V <sub>CE</sub> =90V ; I <sub>B</sub> =0			100	μA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =9V ; I <sub>C</sub> =0 T <sub>C</sub> =125°C			10 100	μA
h <sub>FE-1</sub>	DC current gain	I <sub>C</sub> =0.3A ; V <sub>CE</sub> =5V	30		90	
h <sub>FE-2</sub>	DC current gain	I <sub>C</sub> =5A ; V <sub>CE</sub> =5V	25		60	
h <sub>FE-3</sub>	DC current gain	I <sub>C</sub> =12A ; V <sub>CE</sub> =1V	5			
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =0.2A ; V <sub>CE</sub> =4V		20		MHz
C <sub>ob</sub>	Output capacitance	V <sub>CB</sub> =100V ; f=1MHz		100		pF

