

Silicon PNP Power Transistors

2SA1644

DESCRIPTION

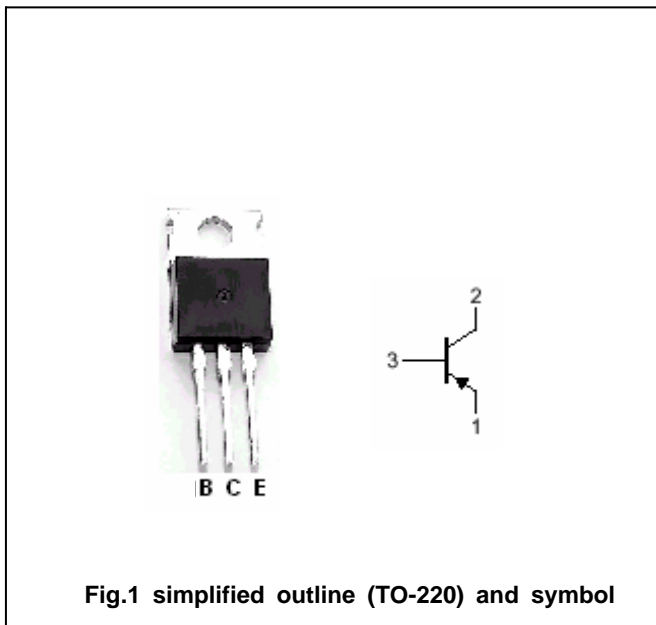
- With TO-220 package
- Fast switching speed
- Low collector saturation voltage

APPLICATIONS

- For use in switching power supplies,DC-DC converters,motor drivers,solenoid drivers, and other low-voltage power supply devices, as well as for high current switching

PINNING

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



Absolute maximum ratings(Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	Open emitter	-150	V
V <sub>CEO</sub>	Collector-emitter voltage	Open base	-100	V
V <sub>EBO</sub>	Emitter-base voltage	Open collector	-7	V
I <sub>C</sub>	Collector current		-5	A
I <sub>CM</sub>	Collector current-peak	PW≤300 μ s, duty cycle≤10%	-10	A
I <sub>B</sub>	Base current		-3	A
P <sub>T</sub>	Total power dissipation	T <sub>a</sub> =25°C	1.5	W
		T <sub>C</sub> =25°C	35	
T <sub>j</sub>	Junction temperature		150	°C
T <sub>stg</sub>	Storage temperature		-55~150	°C

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## CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>CEsat-1</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =-3A; I <sub>B</sub> =-0.15A			-0.3	V
V <sub>CEsat-2</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =-4A; I <sub>B</sub> =-0.2A			-0.5	V
V <sub>BE sat-1</sub>	Base-emitter saturation voltage	I <sub>C</sub> =-3A; I <sub>B</sub> =-0.15A			-1.2	V
V <sub>BE sat-2</sub>	Base-emitter saturation voltage	I <sub>C</sub> =-4A; I <sub>B</sub> =-0.2A			-1.5	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =-100V; I <sub>E</sub> =0			-10	μ A
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =-5V; I <sub>C</sub> =0			-10	μ A
h <sub>FE-1</sub>	DC current gain	I <sub>C</sub> =-0.2A ; V <sub>CE</sub> =-2V	100			
h <sub>FE-2</sub>	DC current gain	I <sub>C</sub> =-1A ; V <sub>CE</sub> =-2V	100		400	
h <sub>FE-3</sub>	DC current gain	I <sub>C</sub> =-3A ; V <sub>CE</sub> =-2V	60			

◆ h<sub>FE-2</sub> Classifications

M	L	K
100-200	150-300	200-400

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PACKAGE OUTLINE



Fig.2 Outline dimensions(unindicated tolerance: ±0.10 mm)