

Silicon NPN Power Transistors

2SD2024

DESCRIPTION

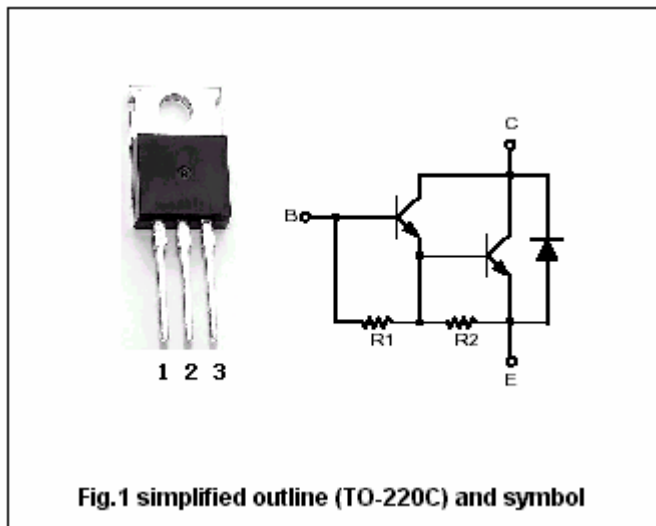
- With TO-220C package
- High DC current gain
- Low saturation voltage
- DARLINGTON

APPLICATIONS

- For low frequency power amplifier and power driver applications

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter



Absolute maximum ratings(Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	Open emitter	100	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		8	A
I <sub>CM</sub>	Collector current-peak		10	A
P <sub>C</sub>	Collector power dissipation	T <sub>a</sub> =25°C	2	W
		T <sub>C</sub> =25°C	40	
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>(BR)CEO</sub>	Collector-emitter breakdown voltage	I <sub>C</sub> =5mA; I <sub>B</sub> =0	100			V
V <sub>(BR)CBO</sub>	Collector-base breakdown voltage	I <sub>C</sub> =50μA; I <sub>E</sub> =0	100			V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =3A ; I <sub>B</sub> =6mA			1.5	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =100V; I <sub>E</sub> =0			10	μA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =5V; I <sub>C</sub> =0			3.0	mA
h <sub>FE</sub>	DC current gain	I <sub>C</sub> =2A ; V <sub>CE</sub> =3V	1000		20000	

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PACKAGE OUTLINE



Fig.2 Outline dimensions (unindicated tolerance:  $\pm 0.10$  mm)