

**Silicon PNP Power Transistors**

**2SB765**

**DESCRIPTION**

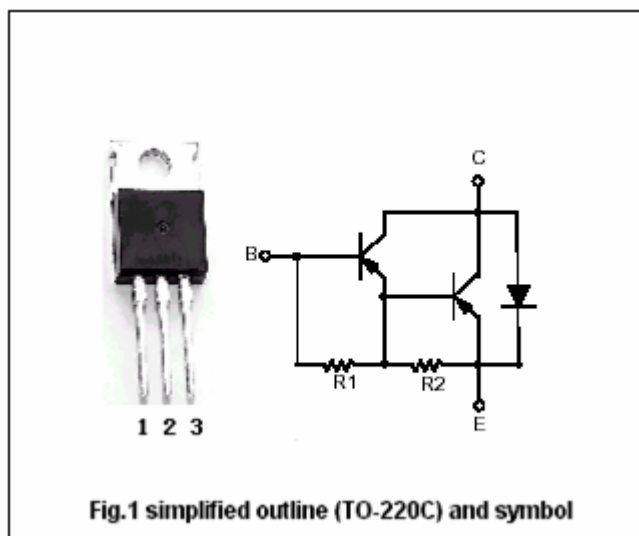
- With TO-220C package
- DARLINGTON
- High DC current gain
- Complement to type 2SD864

**APPLICATIONS**

- For medium speed and power switching Applications

**PINNING**

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



**Absolute maximum ratings(Tc=25°C)**

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	Open emitter	-120	V
V <sub>CEO</sub>	Collector-emitter voltage	Open base	-120	V
V <sub>EBO</sub>	Emitter-base voltage	Open collector	-7	V
I <sub>C</sub>	Collector current		-3	A
I <sub>CM</sub>	Collector current-peak		-6	A
P <sub>C</sub>	Collector power dissipation	T <sub>c</sub> =25°C	30	W
T <sub>j</sub>	Junction temperature		150	°C
T <sub>stg</sub>	Storage temperature		-55~150	°C

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## 2SB765

## 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> =-25mA, R <sub>BE</sub> =∞	-120			V
V <sub>(BR)EBO</sub>	Emitter-base breakdown voltage	I <sub>E</sub> =-50mA, I <sub>C</sub> =0	-7			V
V <sub>CEsat-1</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =-1.5A, I <sub>B</sub> =-3mA			-1.5	V
V <sub>CEsat-2</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =-3A, I <sub>B</sub> =-30mA			-3.0	V
V <sub>BEsat-1</sub>	Base-emitter saturation voltage	I <sub>C</sub> =-1.5A, I <sub>B</sub> =-3mA			-2.0	V
V <sub>BEsat-2</sub>	Base-emitter saturation voltage	I <sub>C</sub> =-3A, I <sub>B</sub> =-30mA			-3.5	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =-120V, I <sub>E</sub> =0			-100	μA
I <sub>CEO</sub>	Collector cut-off current	V <sub>CE</sub> =-100V; R <sub>BE</sub> =∞			-10	μA
h <sub>FE</sub>	DC current gain	I <sub>C</sub> =-1.5A; V <sub>CE</sub> =-3V	1000		20000	

## Switching times

t <sub>on</sub>	Turn-on time	I <sub>C</sub> =-1.5A; I <sub>B1</sub> =-I <sub>B2</sub> =-3mA		0.8		μs
t <sub>stg</sub>	Storage time			3.0		μs
t <sub>f</sub>	Fall time			1.5		μs

