

Silicon NPN Power Transistors

2SD768

DESCRIPTION

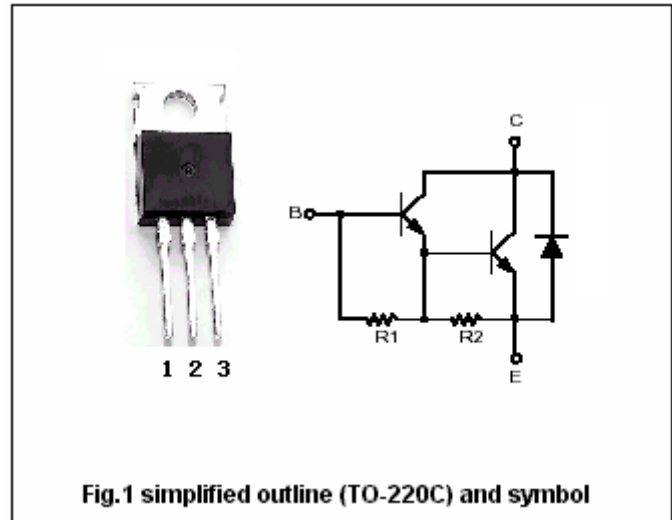
- With TO-220C package
- Complement to type 2SB727
- DARLINGTON

APPLICATIONS

- For medium speed and power switching applications

PINNING

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

Absolute maximum ratings($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	120	V
V_{CEO}	Collector-emitter voltage	Open base	120	V
V_{EBO}	Emitter-base voltage	Open collector	7	V
I_C	Collector current		6	A
I_{CM}	Collector current-Peak		10	A
P_C	Collector dissipation	$T_C=25^\circ\text{C}$	40	W
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-50~150	$^\circ\text{C}$

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CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-emitter breakdown voltage	I _C =25mA; R _{BE} =∞	120			V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =50mA; I _C =0	7			V
V _{CEsat-1}	Collector-emitter saturation voltage	I _C =3A; I _B =6mA			1.5	V
V _{CEsat-2}	Collector-emitter saturation voltage	I _C =6A; I _B =60mA			3.0	V
V _{BEsat-1}	Base-emitter saturation voltage	I _C =3A; I _B =6mA			2.0	V
V _{BEsat-2}	Base-emitter saturation voltage	I _C =6A; I _B =60mA			3.5	V
I _{CBO}	Collector cut-off current	V _{CB} =120V; I _E =0			100	μ A
I _{CEO}	Collector cut-off current	V _{CE} =100V; R _{BE} =∞			10	μ A
h _{FE}	DC current gain	I _C =3A ; V _{CE} =3V	1000		20000	

Switching times

t _{on}	Turn-on time	I _C =3A; I _{B1} =-I _{B2} =6mA		1.0		μ s
t _{off}	Turn-off time			3.0		μ s

