

Silicon PNP Power Transistors

2SB1102

DESCRIPTION

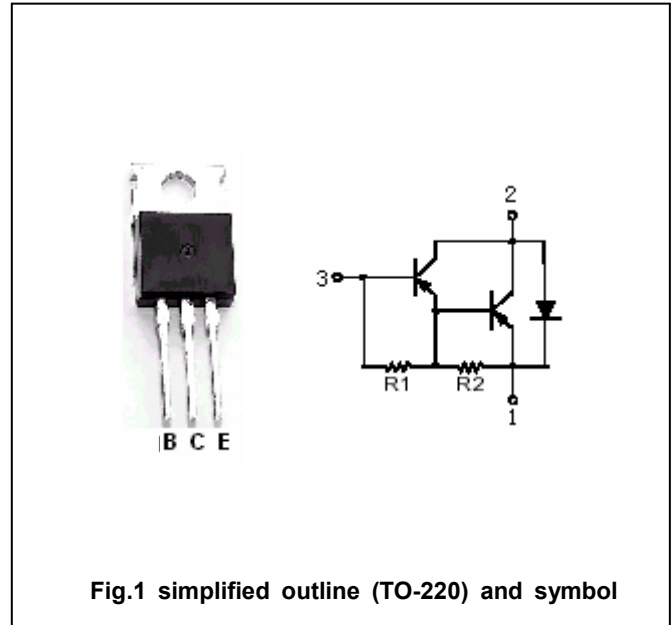
- With TO-220 package
- Complement to type 2SD1602
- DARLINGTON
- High DC current gain

APPLICATIONS

- For low frequency power amplifier applications

PINNING

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

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

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	-80	V
V_{CEO}	Collector-emitter voltage	Open base	-80	V
V_{EBO}	Emitter-base voltage	Open collector	-7	V
I_C	Collector current		-4	A
I_{CM}	Collector current-peak		-8	A
P_C	Collector power dissipation	$T_C=25^\circ\text{C}$	40	W
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-55~150	$^\circ\text{C}$

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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, I _B =0	-80			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 =-2A; I _B =-4mA			-1.5	V
V _{CEsat-2}	Collector-emitter saturation voltage	I _C =-4A; I _B =-40mA			-3.0	V
V _{BEsat-1}	Base-emitter saturation voltage	I _C =-2A; I _B =-4mA			-2.0	V
V _{BEsat-2}	Base-emitter saturation voltage	I _C =-4A; I _B =-40mA			-3.5	V
I _{CBO}	Collector cut-off current	V _{CB} =-60V; I _E =0			-100	μA
I _{CEO}	Collector cut-off current	V _{CE} =-50V; I _B =0			-10	μA
h _{FE}	DC current gain	I _C =-2A; V _{CE} =-3V	1000		20000	
V _D	Diode forward voltage	I _D =4A;			3.0	V

Switching times

t _{on}	Turn-on time	I _C =-2A I _{B1} =-I _{B2} =-4mA		0.8		μs
t _s	Storage time			4.0		μs
t _f	Fall time			1.0		μs

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PACKAGE OUTLINE



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