

Silicon PNP Power Transistors

2SB1103

DESCRIPTION

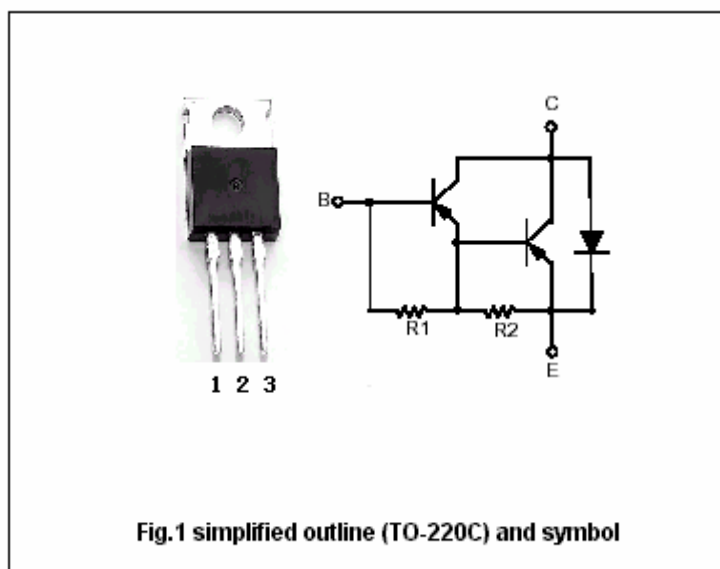
- With TO-220C package
- DARLINGTON
- High DC current gain
- Low collector saturation voltage
- Complement to type 2SD1603

APPLICATIONS

- Designed for use in low frequency power amplifier applications

PINNING

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

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

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	-60	V
V_{CEO}	Collector-emitter voltage	Open base	-60	V
V_{EBO}	Emitter-base voltage	Open collector	-7	V
I_C	Collector current-DC		-8	A
I_{CM}	Collector current-peak		-12	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, R _{BE} =∞	-60			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 =-4A, I _B =-8mA			-1.5	V
V _{CEsat-2}	Collector-emitter saturation voltage	I _C =-8A, I _B =-80mA			-3.0	V
V _{BESat-1}	Base-emitter saturation voltage	I _C =-4A, I _B =-8mA			-2.0	V
V _{BESat-2}	Base-emitter saturation voltage	I _C =-8A, I _B =-80mA			-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, R _{BE} =∞			-10	μA
h _{FE}	DC current gain	I _C =-4A ; V _{CE} =-3V	1000			
V _D	Diode forward voltage	I _D =8A			3.0	V

Switching times

t _{on}	Turn-on time	I _C =-4A, I _{B1} =-I _{B2} =-8mA		0.5		μs
t _{stg}	Storage time			3.0		μs
t _f	Fall time			1.0		μs

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PACKAGE OUTLINE

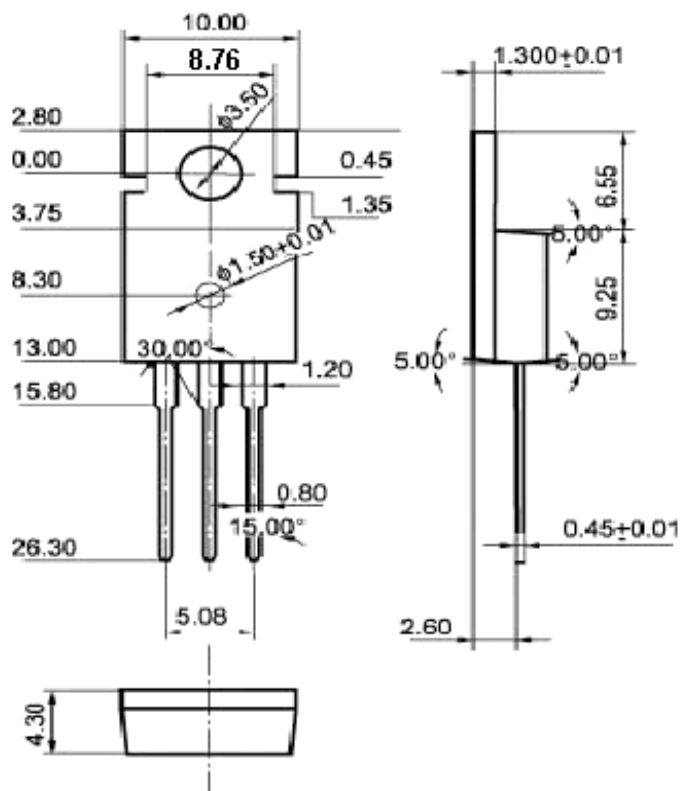


Fig.2 Outline dimensions