

Silicon PNP Power Transistors

2SB1228

DESCRIPTION

- With TO-220F package
- Complement to type 2SD1830
- High DC current gain.
- Large current capacity and wide ASO.
- Low saturation voltage.
- DARLINGTON

APPLICATIONS

- Suitable for use in control of motor drivers, printer hammer drivers, relay drivers, and constant-voltage regulators.

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

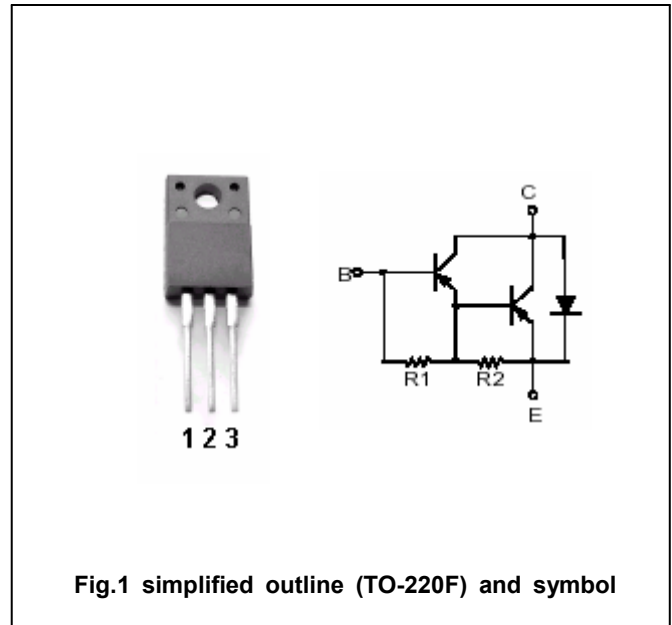


Fig.1 simplified outline (TO-220F) and symbol

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

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	-110	V
V_{CEO}	Collector-emitter voltage	Open base	-100	V
V_{EBO}	Emitter-base voltage	Open collector	-6	V
I_C	Collector current		-8	A
I_{CM}	Collector current-peak		-12	A
P_C	Collector dissipation	$T_C=25^\circ\text{C}$	20	W
			2	
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)CBO}	Collector-base breakdown voltage	I _C =-5mA; I _E =0	-110			V
V _{(BR)CEO}	Collector-emitter breakdown voltage	I _C =-50mA; R _{BE} =∞	-100			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =-4A; I _B =-8mA		-1.0	-1.5	V
V _{BEsat}	Base-emitter saturation voltage	I _C =-4A; I _B =-8mA			-2.0	V
I _{CBO}	Collector cut-off current	V _{CB} =-80V; I _E =0			-0.1	mA
I _{EBO}	Emitter cut-off current	V _{EB} =-5V; I _C =0			-3.0	mA
h _{FE}	DC current gain	I _C =-4A; V _{CE} =-3V	1500	4000		
f _T	Transition frequency	I _C =-4A; V _{CE} =-5V		20		MHz

Switching times

t _{on}	Turn-on time	I _C =500I _{B1} =-500I _{B2} =-4A V _{CC} =-50V, R _L =12.5Ω		0.7		μs
t _{stg}	Storage time			1.4		μs
t _f	Fall time			1.5		μs

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PACKAGE OUTLINE

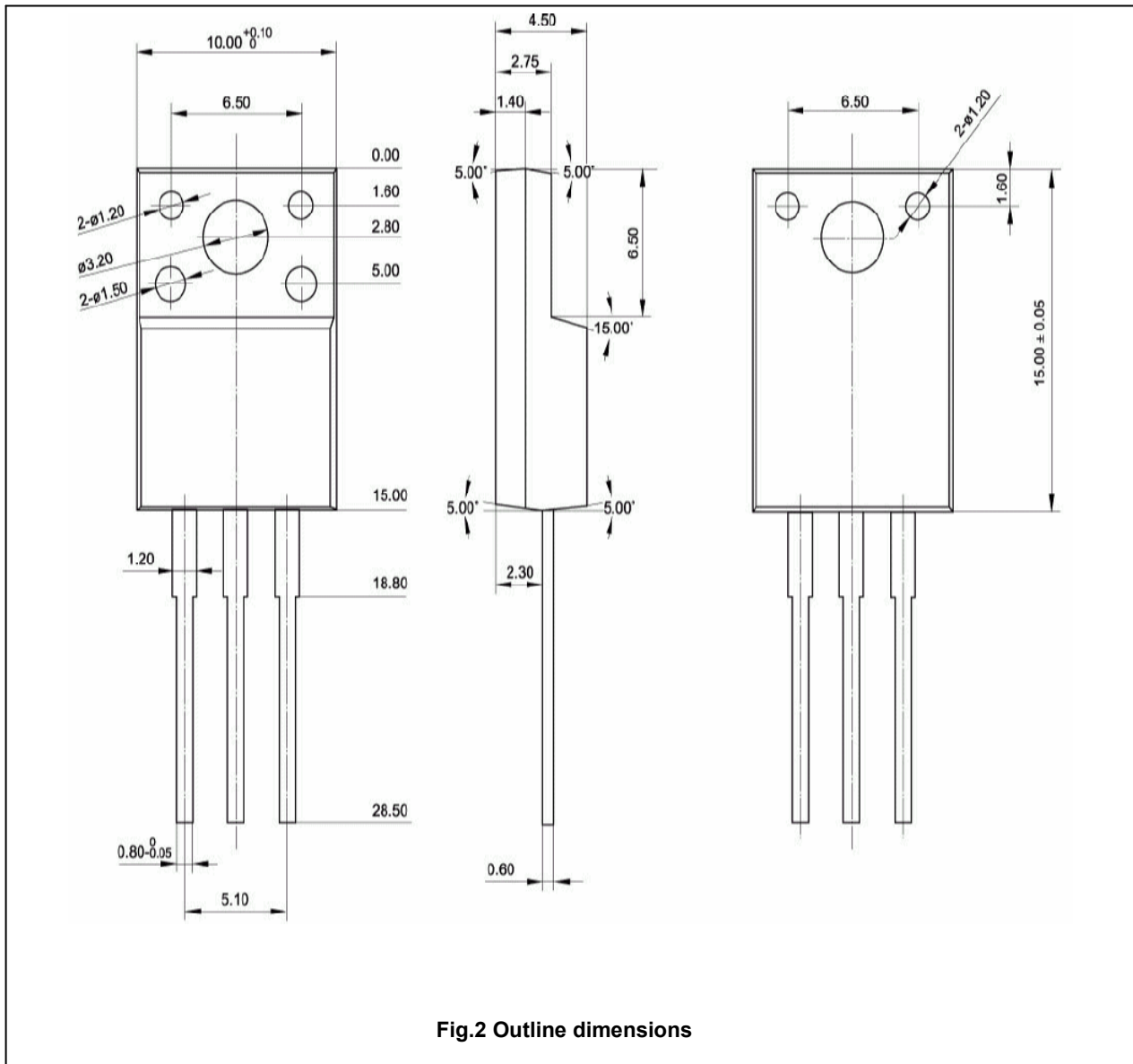


Fig.2 Outline dimensions