

Silicon PNP Power Transistors

2SB1381

DESCRIPTION

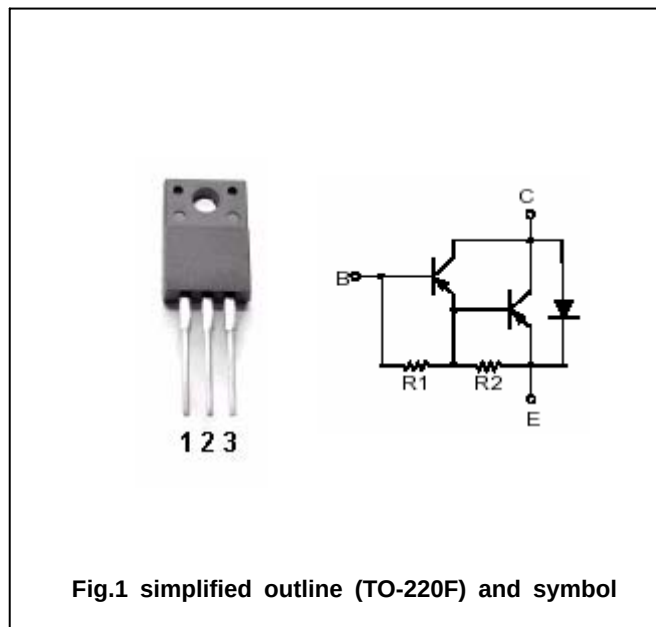
- With TO-220F package
- Complement to type 2SD2079
- Low collector saturation voltage
- High DC current gain

APPLICATIONS

- High power switching applications
- Hammer drive,pulse motor drive applications

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter



Absolute maximum ratings (Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	-100	V
V_{CEO}	Collector-emitter voltage	Open base	-100	V
V_{EBO}	Emitter-base voltage	Open collector	-7	V
I_C	Collector current		-5	A
I_{CM}	Collector current-peak		-8	A
I_B	Base current		-0.5	A
P_C	Collector dissipation	$T_a=25^\circ\text{C}$	2	W
		$T_c=25^\circ\text{C}$	30	
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 =-30mA ; I _B =0	-100			V
V _{CEsat-1}	Collector-emitter saturation voltage	I _C =-2.5A; I _B =-5mA			-1.5	V
V _{CEsat-2}	Collector-emitter saturation voltage	I _C =-5A; I _B =-20mA			-3.0	V
V _{BEsat}	Base-emitter saturation voltage	I _C =-2.5A; I _B =-5mA			-2.5	V
I _{CBO}	Collector cut-off current	V _{CB} =-100V; I _E =0			-100	μ A
I _{EBO}	Emitter cut-off current	V _{EB} =-6V; I _C =0			-2.5	mA
h _{FE-1}	DC current gain	I _C =-2.5A ; V _{CE} =-3V	1500		15000	
h _{FE-2}	DC current gain	I _C =-7A ; V _{CE} =-3V	500			

Switching times

t _{on}	Turn-on time	I _{B1} =-I _{B2} =-5mA V _{CC} =-25V , R _L =10Ω		0.8		μ s
t _s	Storage time			2.5		μ s
t _f	Fall time			2.0		μ s

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PACKAGE OUTLINE

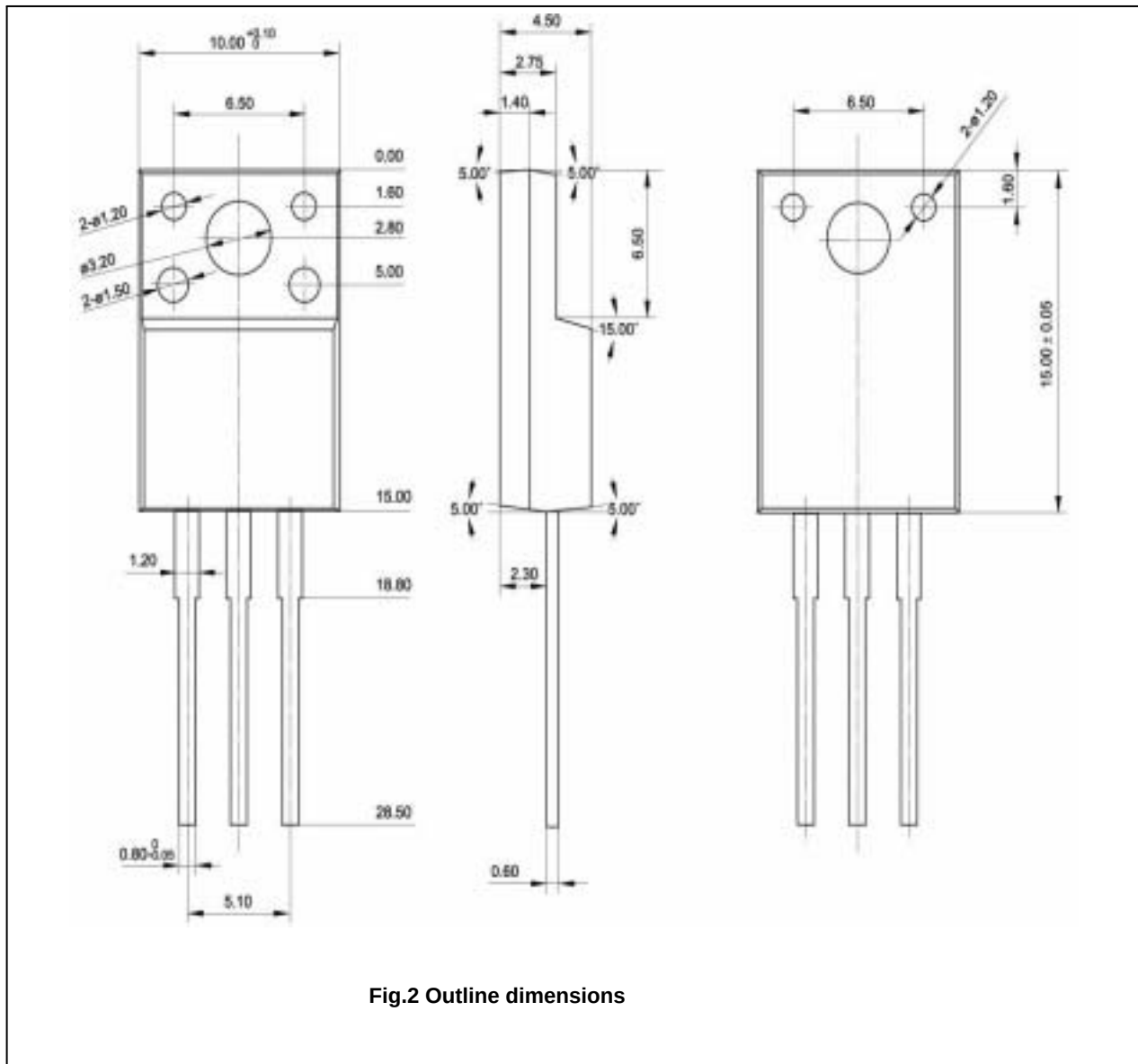


Fig.2 Outline dimensions