

Silicon PNP Power Transistors

2SB1430

DESCRIPTION

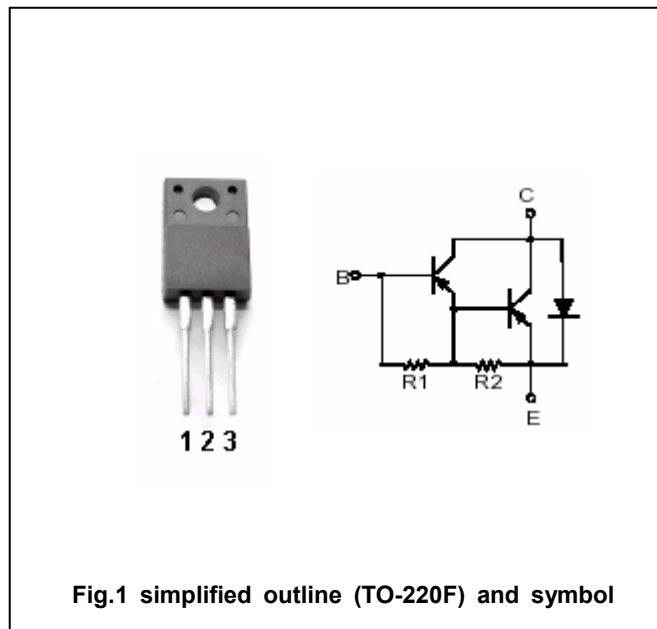
- With TO-220F package
- High DC current gain.
- Low collector saturation voltage.
- DARLINGTON

APPLICATIONS

- Ideal for motor drivers and solenoid drivers
In such as OA and FA equipment

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

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

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		-10	A
I_B	Base current		-0.5	A
P_T	Total power dissipation	$T_C=25^\circ\text{C}$	20	W
		$T_a=25^\circ\text{C}$	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 _{CEsat}	Collector-emitter saturation voltage	I _C =-2A ; I _B =-2mA			-1.5	V
V _{BEsat}	Base-emitter saturation voltage	I _C =-2A ; I _B =-2mA			-2.0	V
I _{CBO}	Collector cut-off current	V _{CB} =-100V; I _E =0			-1.0	μA
I _{EBO}	Emitter cut-off current	V _{EB} =-7V; I _C =0			-5.0	mA
h _{FE-1}	DC current gain	I _C =-2A ; V _{CE} =-2V	2000		20000	
h _{FE-2}	DC current gain	I _C =-4A ; V _{CE} =-2V	500			
C _{OB}	Output capacitance	I _E =0 ; V _{CB} =-10V; f=1MHz		60		pF
f _T	Transition frequency	I _C =-0.5A ; V _{CE} =-5V		80		MHz

Switching times

t _{on}	Turn-on time	I _C =-2A ; I _{B1} =-I _{B2} =-2mA V _{CC} ≈-50V; R _L =25Ω		0.5		μs
t _{stg}	Storage time			1.0		μs
t _f	Fall time			1.0		μs

◆ h_{FE-1} Classifications

M	L	K
2000-5000	4000-10000	8000-20000

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PACKAGE OUTLINE

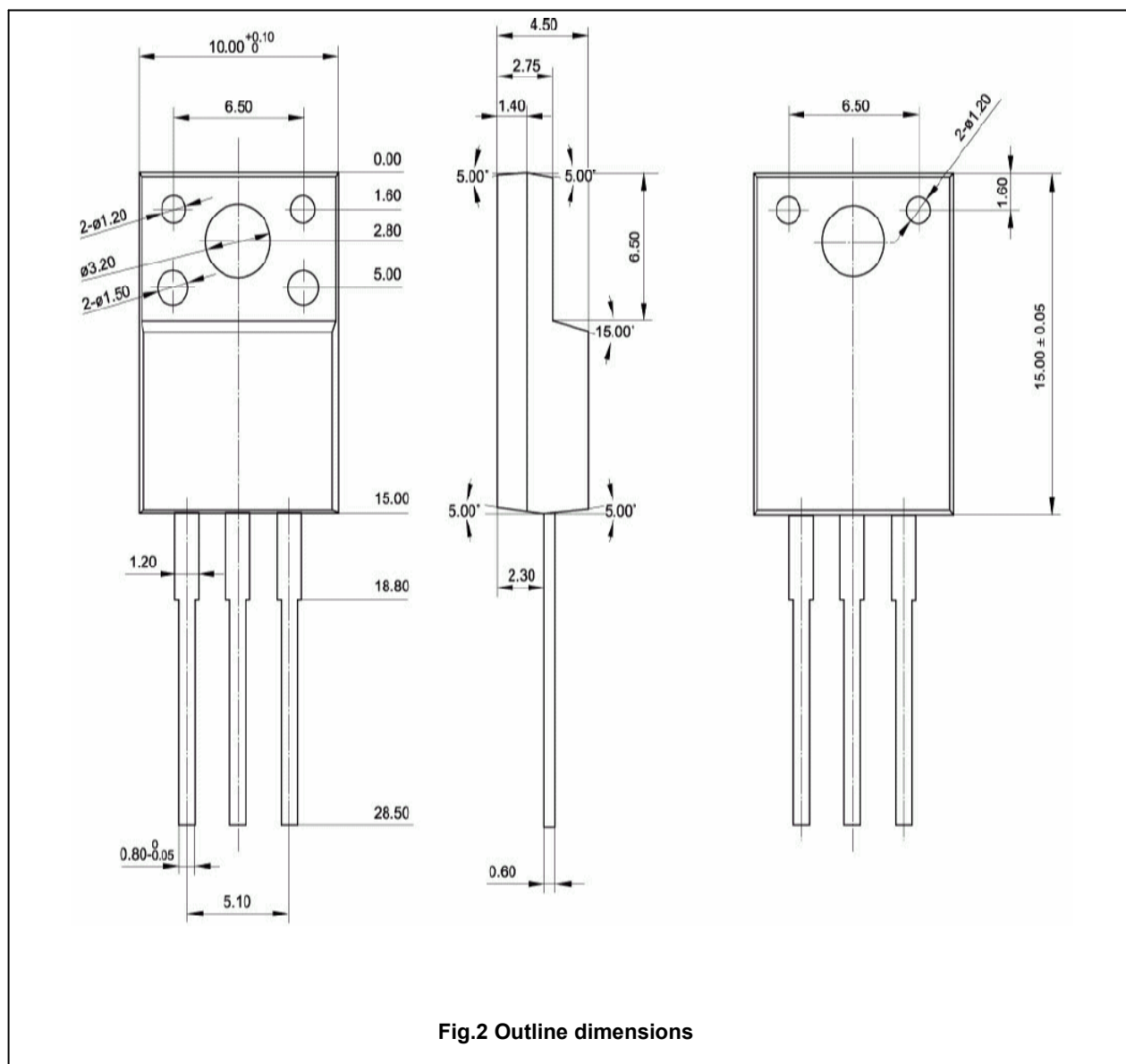


Fig.2 Outline dimensions