

Silicon PNP Power Transistors

2SB1411

DESCRIPTION

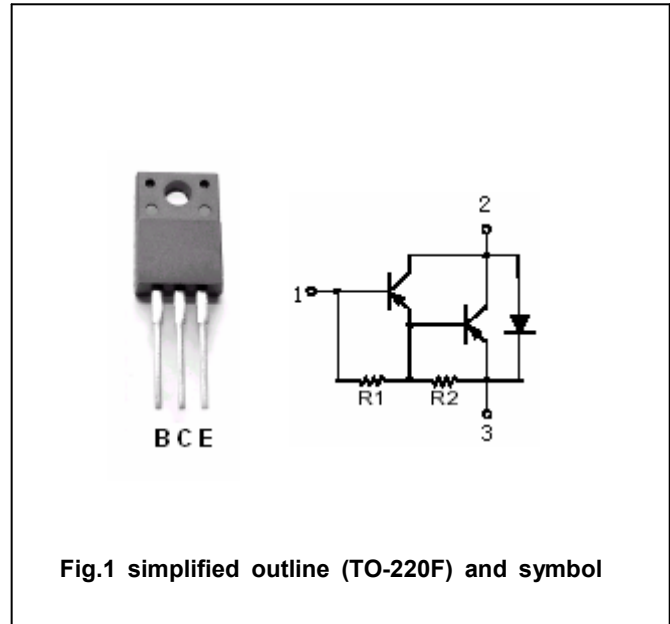
- With TO-220F package
- DARLINGTON
- High DC current gain
- Low collector saturation voltage

APPLICATIONS

- Switching applications
- Hammer drive ,pulse motor drive applications

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter



Absolute maximum ratings (Ta=25℃)

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		-2	A
I _{CM}	Collector current-peak		-3	A
I _B	Base current		-0.5	A
P _C	Collector power dissipation	T _C =25℃	20	W
T _j	Junction temperature		150	℃
T _{stg}	Storage temperature		-55~150	℃

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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 =-50mA ; I _B =0	-110			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =-5A; I _B =-5mA			-2.5	V
V _{BEsat}	Base-emitter saturation voltage	I _C =-5A; I _B =-5mA			-3.0	V
I _{CBO}	Collector cut-off current	V _{CB} =-110V; I _E =0			-0.1	mA
I _{EBO}	Emitter cut-off current	V _{EB} =-5V; I _C =0			-0.1	mA
h _{FE}	DC current gain	I _C =-5A ; V _{CE} =-4V	5000			
f _T	Transition frequency	I _C =-0.5A ; V _{CE} =-12V		100		MHz
C _{OB}	Collector output capacitance	f=1MHz; V _{CB} =-10V		110		pF

Switching times

t _{on}	Turn-on time	I _C =-5A I _{B1} =-I _{B2} =-5mA V _{CC} =30V ,R _L =6Ω		1.1		μs
t _s	Storage time			3.2		μs
t _f	Fall time			1.1		μs

◆ h_{FE} Classifications

O	p	Y
5000-12000	6500-20000	15000-30000

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PACKAGE OUTLINE

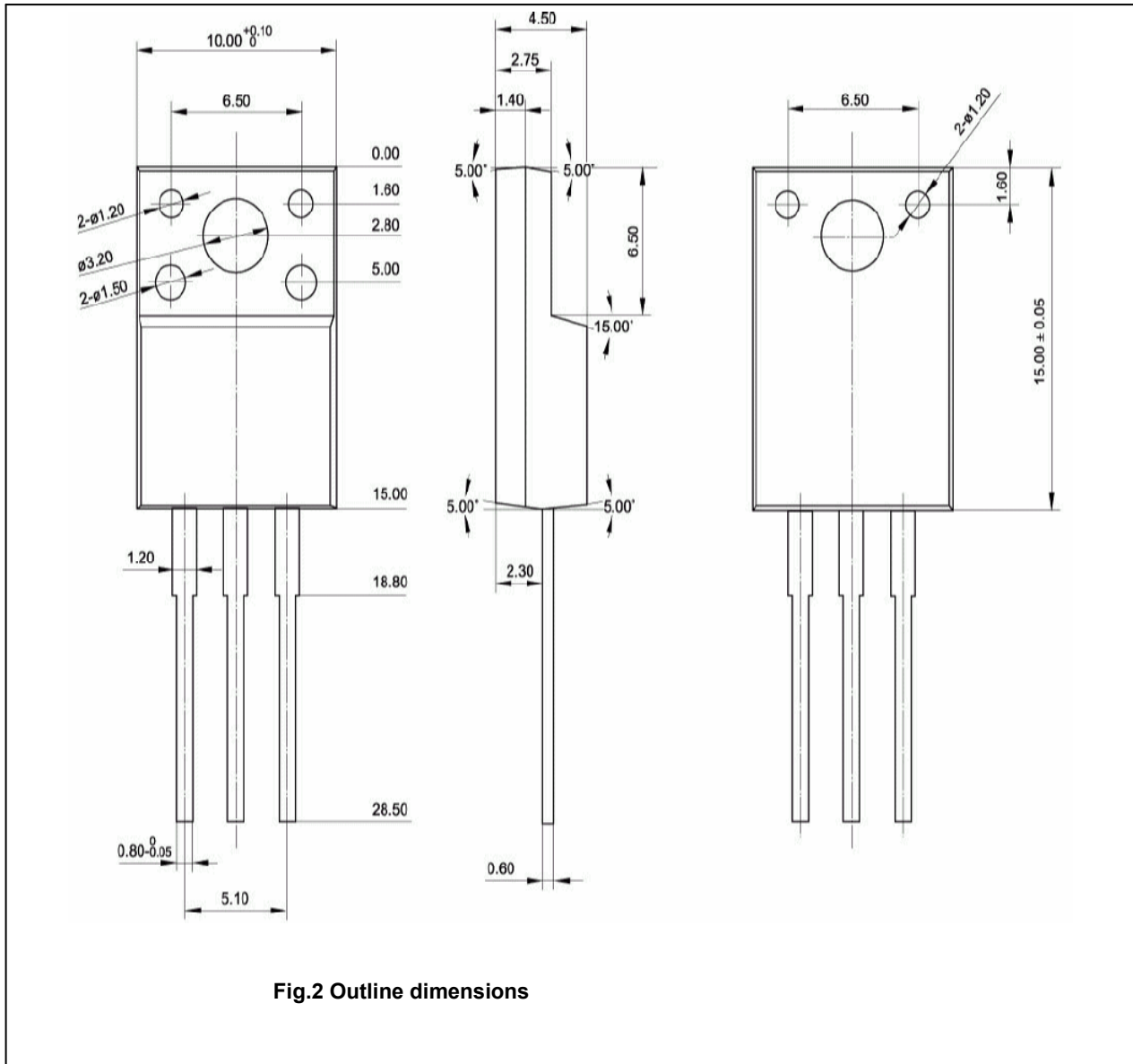


Fig.2 Outline dimensions