

Silicon NPN Power Transistors

2SC5382

DESCRIPTION

- With TO-220F package
- High Voltage
- High speed switching

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

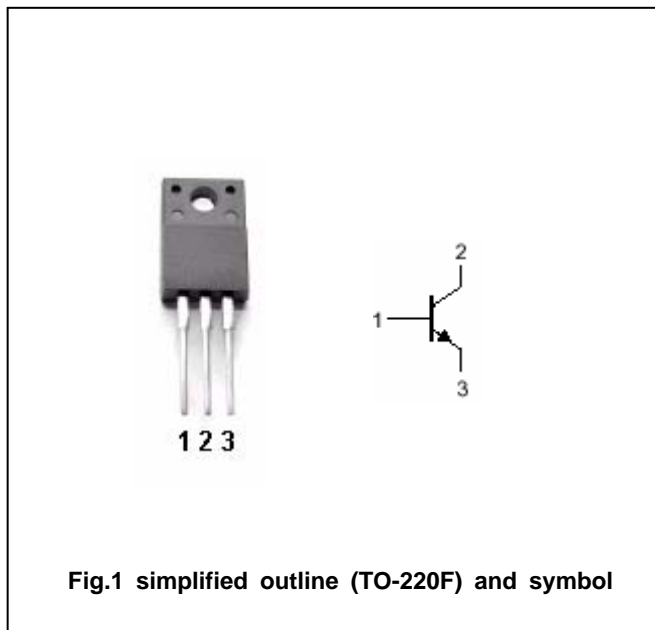


Fig.1 simplified outline (TO-220F) and symbol

Absolute maximum ratings (Ta=25)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	Open emitter	1200	V
V _{CEO}	Collector-emitter voltage	Open base	550	V
V _{EBO}	Emitter-base voltage	Open collector	9	V
I _C	Collector current		6	A
I _{CM}	Collector current-peak		12	A
I _B	Base current		3	A
I _{BM}	Base current-peak		6	A
P _T	Total power dissipation	T _C =25	40	W
T _j	Junction temperature		150	
T _{stg}	Storage temperature		-55~150	

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal resistance junction case	3.13	/W

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CHARACTERISTICS

T_j=25 unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CE0(SUS)}	Collector-emitter sustaining voltage	I _C =0.1A; I _B =0	550			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =3A; I _B =0.6 A			1.0	V
V _{BEsat}	Base-emitter saturation voltage	I _C =3A; I _B =0.6 A			1.5	V
I _{CBO}	Collector cut-off current	V _{CB} =1200V; I _E =0			0.1	mA
I _{CEO}	Collector cut-off current	V _{CE} =550V; I _B =0			0.1	mA
I _{EBO}	Emitter cut-off current	V _{EB} =9V; I _C =0			0.1	mA
h _{FE-1}	DC current gain	I _C =3A ; V _{CE} =5V	10			
h _{FE-2}	DC current gain	I _C =1mA ; V _{CE} =5V	10			
Switching times						
t _{on}	Turn-on time	I _C =3A; I _{B1} =0.6A ; I _{B2} =1.2A R _L =50 ; V _{BB2} =4V			1.3	μs
t _s	Storage time				4.0	μs
t _f	Fall time				0.3	μs

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PACKAGE OUTLINE

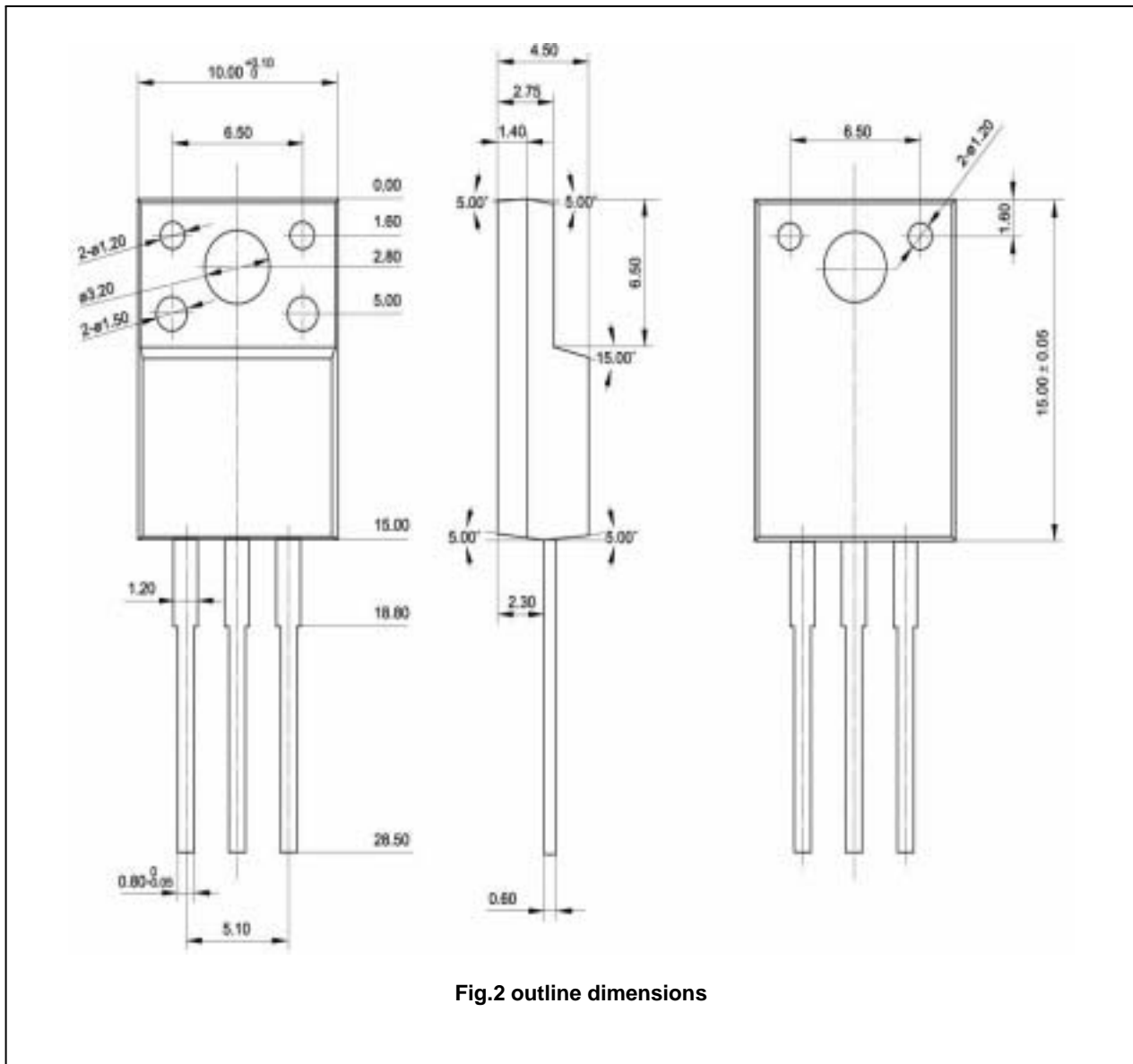


Fig.2 outline dimensions