Silicon NPN Power Transistors 2SC5382

DESCRIPTION

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

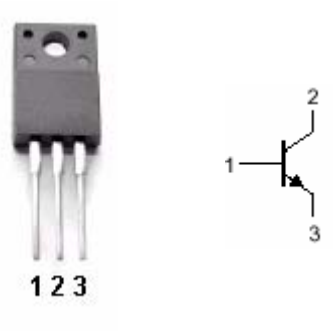


Fig.1 simplified outline (TO-220F) and symbol

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	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
$R_{th\ j\text{-}C}$	Thermal resistance junction case	3.13	℃/W

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CHARACTERISTICS

Tj=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	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=50Ω;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

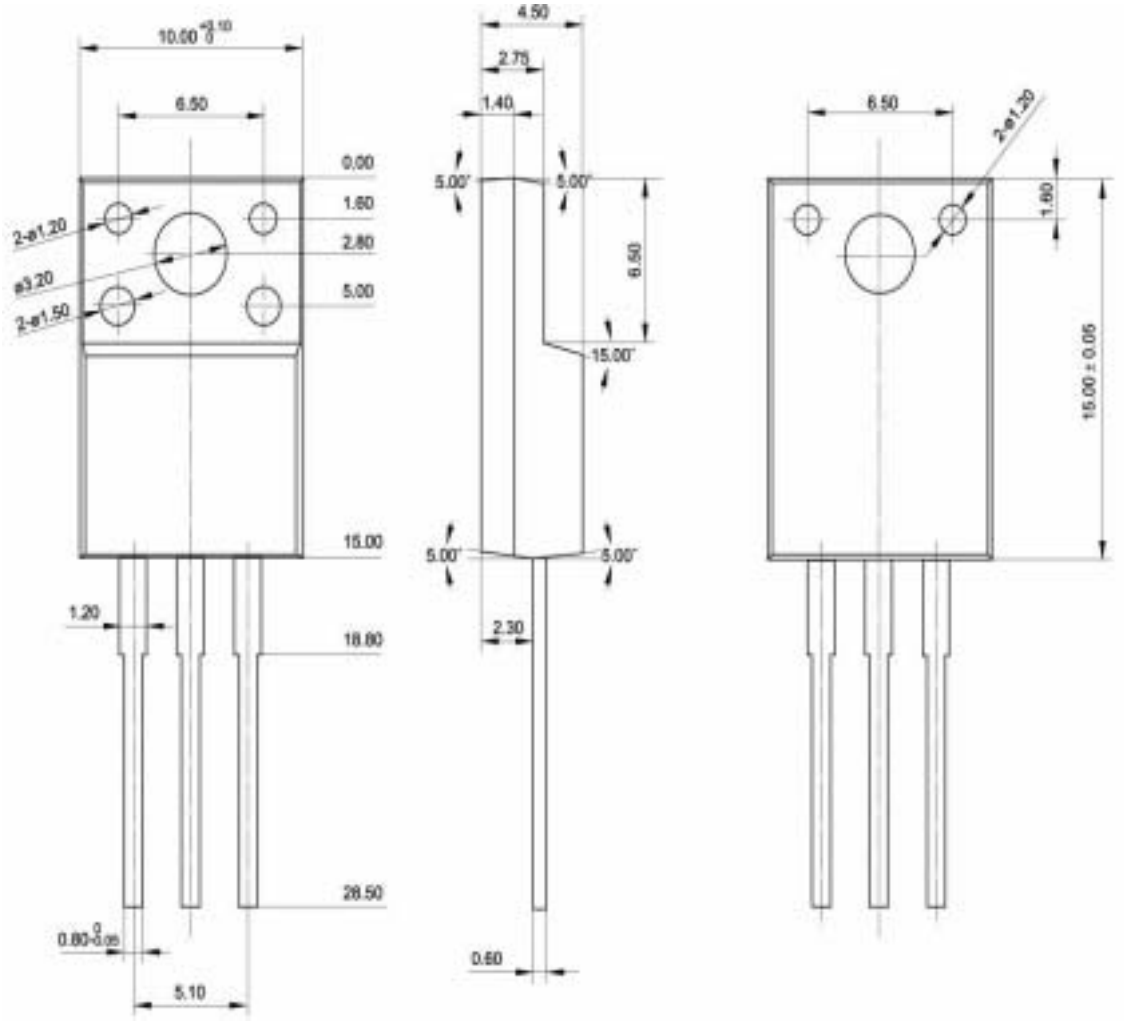


Fig.2 outline dimensions