Silicon NPN Power Transistors 2SC5895

DESCRIPTION

- With TO-220F package
- High speed switching
- Low collector saturation voltage

APPLICATIONS

- Power supply for audio and visual equipments such as TVs and VCRs
- Industrial equipments such as DC-DC converters

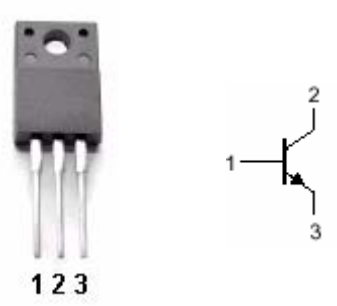


Fig.1 simplified outline (TO-220F) and symbol

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	60	V
V_{CEO}	Collector-emitter voltage	Open base	60	V
V_{EBO}	Emitter-base voltage	Open collector	6	V
I_C	Collector current		2	A
I_{CM}	Collector current-peak		4	A
P_C	Collector power dissipation	T_a=25℃	2	W
		T_C=25℃	15	
T_j	Junction temperature		150	℃
T_{stg}	Storage temperature		-55~150	℃

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CHARACTERISTICS

Tj=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V_{CEsat}	Collector-emitter saturation voltage	I_C=2A; I_B=0.25 A			0.5	V
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	I_C=10mA; I_B=0	60			V
I_{CBO}	Collector cut-off current	V_{CB}=60V; I_E=0			100	μA
I_{CEO}	Collector cut-off current	V_{CE}=60V; I_B=0			100	μA
h_{FE-1}	DC current gain	I_C=0.2A ; V_{CE}=4V	60			
h_{FE-2}	DC current gain	I_C=1A ; V_{CE}=4V	80		250	
h_{FE-3}	DC current gain	I_C=2A ; V_{CE}=4V	30			
f_T	Transition frequency	I_C=0.1A ; V_{CB}=10V;f=10MHz		100		MHz

Switching times

t_{on}	Turn-on time	I_C=1A;I_{B1}=-I_{B2}=0.1A V_{CC}=50V		0.2		μs
t_{stg}	Storage time			0.7		μs
t_f	Fall time			0.15		μs

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PACKAGE OUTLINE

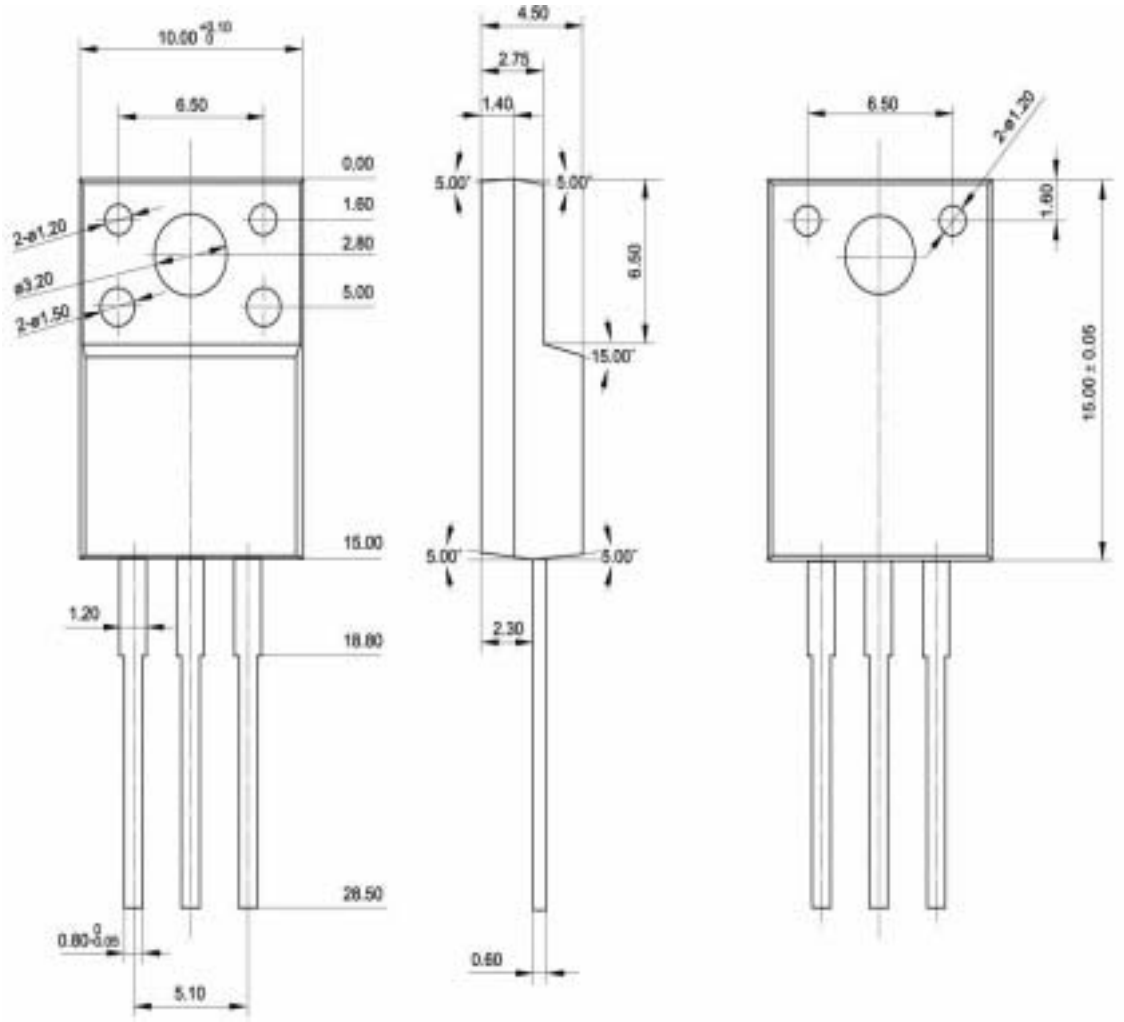


Fig.2 outline dimensions