

Silicon NPN Power Transistors

2SC5271

DESCRIPTION

- With TO-220F package

APPLICATIONS

- For resonant switching regulator and general purpose applications

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

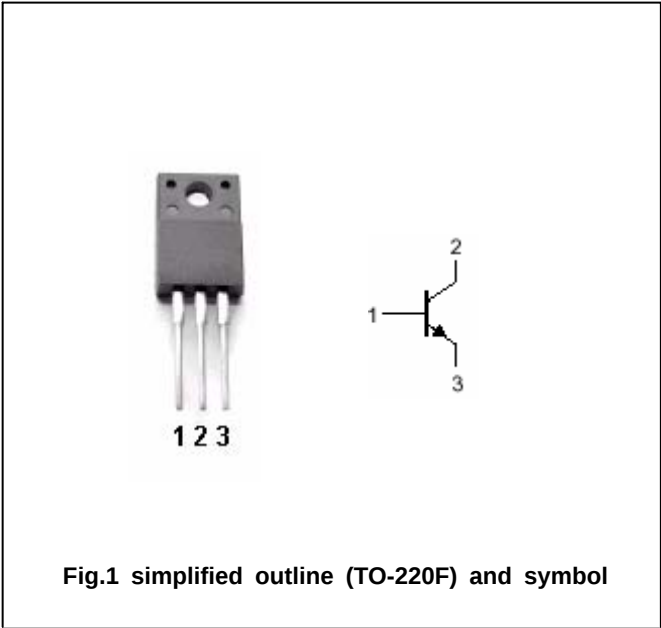


Fig.1 simplified outline (TO-220F) and symbol

Absolute maximum ratings(Ta=25)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	Open emitter	300	V
V _{CEO}	Collector-emitter voltage	Open base	200	V
V _{EB0}	Emitter-base voltage	Open collector	7	V
I _C	Collector current		5	A
I _{CM}	Collector current-peak		10	A
I _B	Base current		2	A
P _C	Collector power dissipation	T _C =25	30	W
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
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C=10mA; I_B=0$	200			V
V_{CEsat}	Collector-emitter saturation voltage	$I_C=2.5A; I_B=0.5A$			1.0	V
V_{BEsat}	Base-emitter saturation voltage	$I_C=2.5A; I_B=0.5A$			1.5	V
I_{CBO}	Collector cut-off current	$V_{CB}=300V; I_E=0$			100	μA
I_{EBO}	Emitter cut-off current	$V_{EB}=7V; I_C=0$			100	μA
h_{FE-1}	DC current gain	$I_C=2.5A; V_{CE}=2V$	10		30	
h_{FE-2}	DC current gain	$I_C=1mA; V_{CE}=2V$	15			
f_T	Transition frequency	$I_E=-0.5A; V_{CE}=12V$		10		MHz
C_{OB}	Output capacitance	$V_{CB}=10V; f=1MHz$		45		pF
Switching times						
t_{on}	Turn-on time	$I_C=2.5A; I_{B1}=0.5A; I_{B2}=-1.0A$ $R_L=60\Omega; V_{CC}=150V$			0.3	μs
t_{stg}	Storage time				1.0	μs
t_f	Fall time				0.1	μs

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PACKAGE OUTLINE

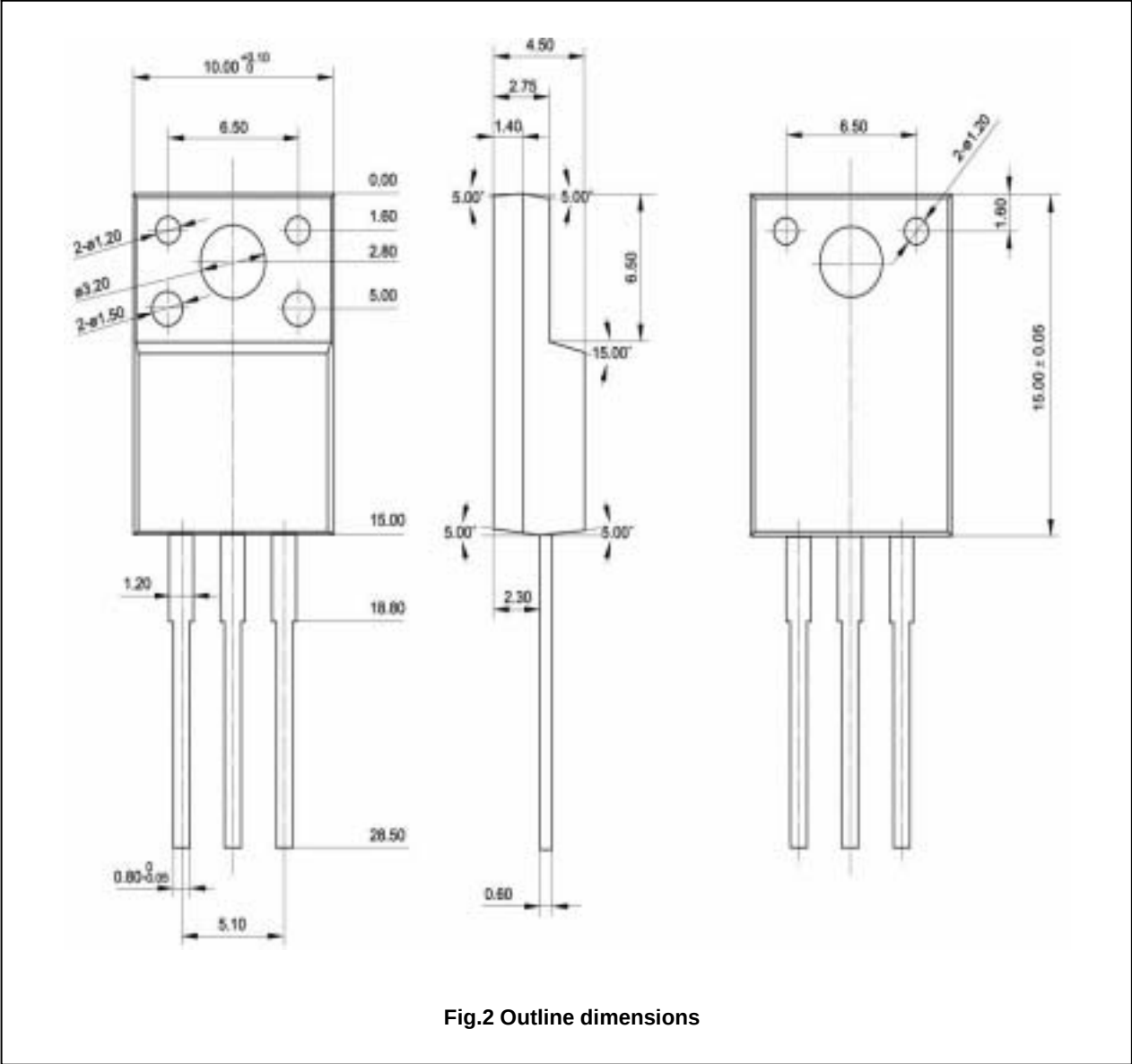


Fig.2 Outline dimensions