

Silicon Power Transistors

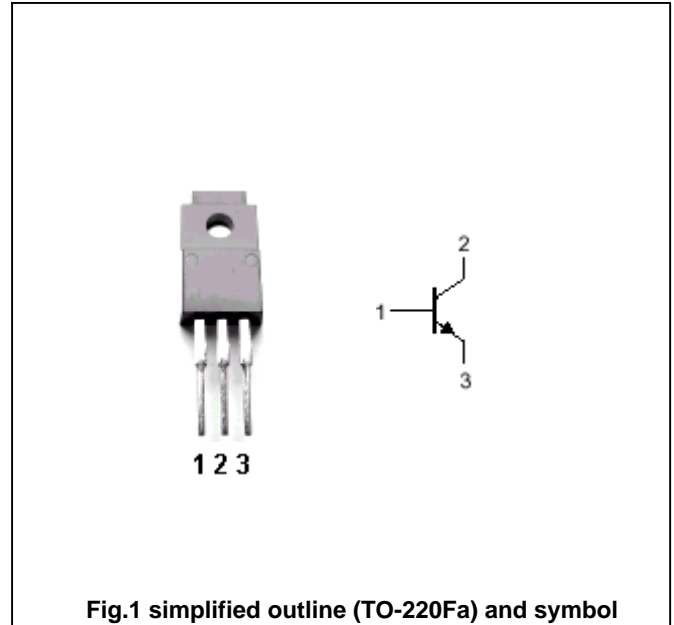
2SC3979

DESCRIPTION

- With TO-220Fa package
- High breakdown voltage
- High speed switching
- Wide area of safe operation (SOA)
- Full-pack package which can be installed to the heat sink with one screw

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	emitter



ABSOLUTE MAXIMUM RATINGS AT Tc=25

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CB0}	Collector-base voltage	Open emitter	900	V
V _{CEO}	Collector-emitter voltage	Open base	800	V
V _{EBO}	Emitter-base voltage	Open collector	7	V
I _C	Collector current (DC)		3	A
I _{CM}	Collector current-Peak		5	A
I _B	Base current		1	A
P _C	Collector power dissipation	T _C =25	40	W
P _C	Collector power dissipation	T _a =25	2	W
T _j	Junction temperature		150	
T _{stg}	Storage temperature		-55~150	

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CHARACTERISTICS

T_j=25 unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO}	Collector-emitter voltage	I _C =10mA, I _B =0	800			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =0.8A I _B =0.16A			1.5	V
V _{BEsat}	Emitter-base saturation voltage	I _C =0.8A I _B =0.16A			1.5	V
I _{CBO}	Collector cut-off current	V _{CB} =900V I _E =0			50	μA
I _{EBO}	Emitter cut-off current	V _{EB} =7V; I _C =0			50	μA
h _{FE-1}	DC current gain	I _C =0.1A; V _{CE} =5V	8			
h _{FE-2}	DC current gain	I _C =0.8A; V _{CE} =5V	6			
f _T	Transition frequency	I _C =0.15A; V _{CE} =5V		10		MHz

Switching times

t _{on}	Turn-on time	I _C =0.8A ; I _{B1} =0.8A I _{B2} =-0.32A V _{CC} =250V			0.7	μs
t _s	Storage time				2.5	μs
t _f	Fall time				0.3	μs

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PACKAGE OUTLINE

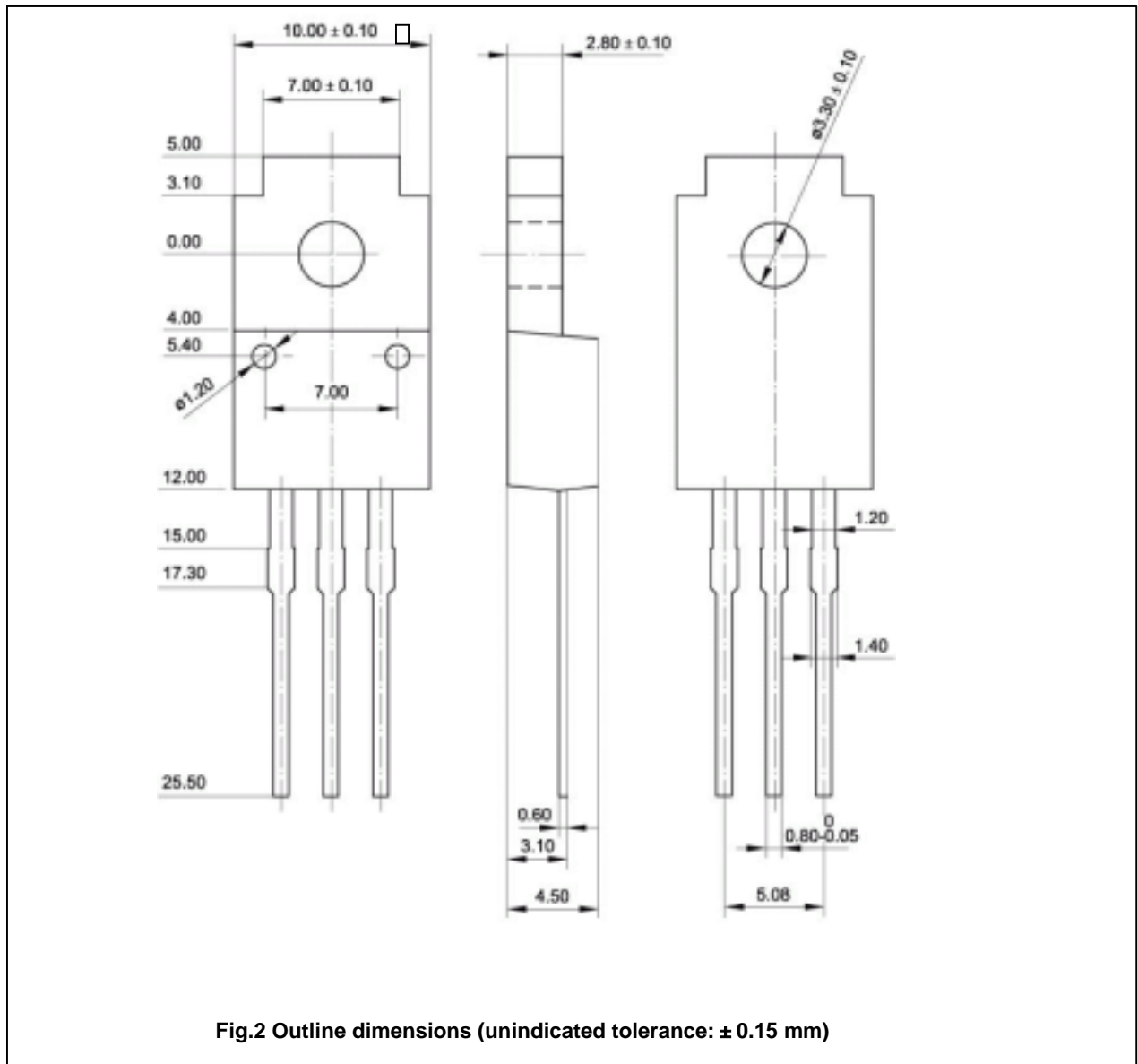


Fig.2 Outline dimensions (unindicated tolerance: ± 0.15 mm)