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 heak sink with one screw

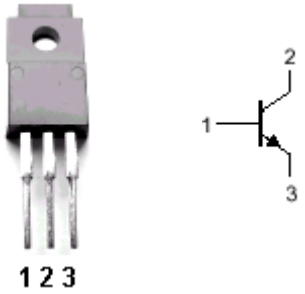


Fig.1 simplified outline (TO-220Fa) and symbol

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	emitter

ABSOLUTE MAXIMUM RATINGS AT Tc=25℃

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	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

Tj=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

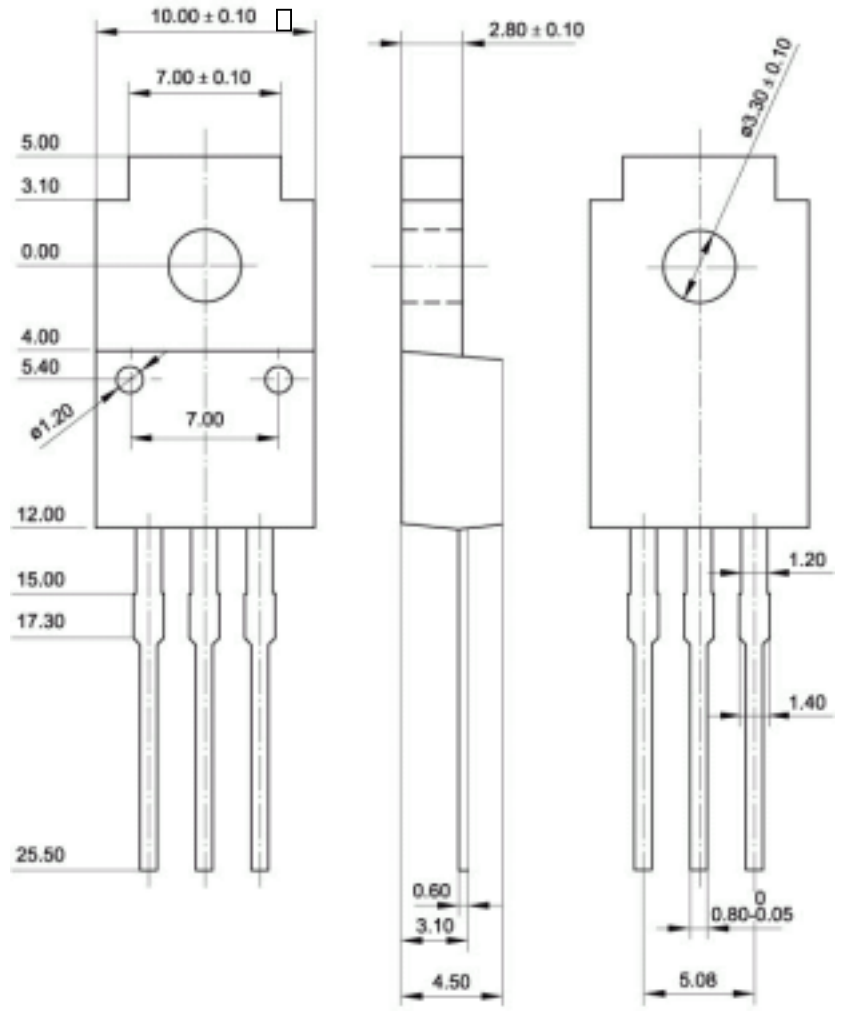


Fig.2 Outline dimensions (unindicated tolerance:±0.15 mm)