

Silicon NPN Power Transistors

2SC3973B

DESCRIPTION

- With TO-220Fa package
- High voltage,high speed
- Wide area of safe operation

APPLICATIONS

- For high voltage,high speed switching applications

PINNING

PIN	DESCRIPTION
1	Base
2	Collector;connected to mounting base
3	Emitter

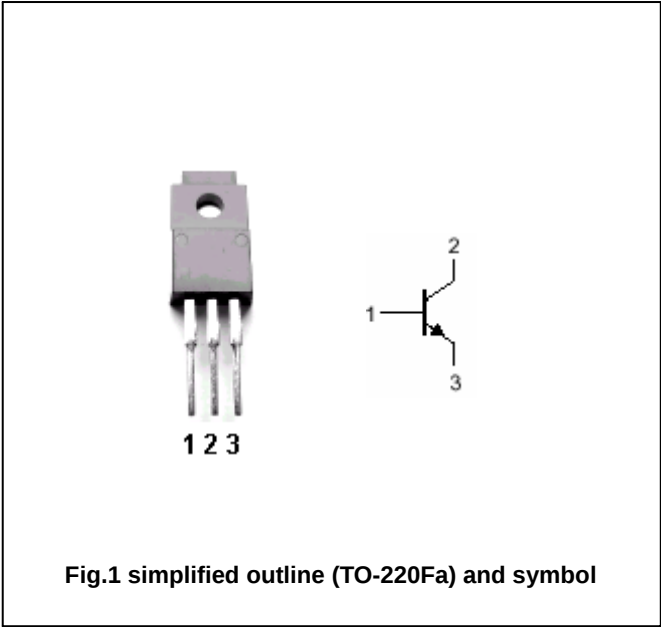


Fig.1 simplified outline (TO-220Fa) and symbol

Absolute maximum ratings(Ta=25)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	Open emitter	1000	V
V _{CEO}	Collector-emitter voltage	Open base	500	V
V _{EBO}	Emitter-base voltage	Open collector	8	V
I _C	Collector current (DC)		7	A
I _{CM}	Collector current-Peak		15	A
I _B	Base current (DC)		4	A
P _C	Collector power dissipation	T _a =25	2	W
		T _C =25	45	
T _j	Maximum operating 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	$I_C=10mA$; $I_B=0$	500			V
V_{CEsat}	Collector-emitter saturation voltage	$I_C=4A$; $I_B=0.8A$			1.0	V
V_{BEsat}	Base-emitter saturation voltage	$I_C=4A$; $I_B=0.8A$			1.5	V
I_{CBO}	Collector cut-off current	$V_{CB}=1000V$; $I_E=0$			100	μA
I_{EBO}	Emitter cut-off current	$V_{EB}=5V$; $I_C=0$			100	μA
h_{FE-1}	DC current gain	$I_C=0.1A$; $V_{CE}=5V$	15			
h_{FE-2}	DC current gain	$I_C=4A$; $V_{CE}=5V$	8			

固电半导体
INCHANGE SEMICONDUCTOR

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PACKAGE OUTLINE

