



Micro Commercial Components
 21201 Itasca Street Chatsworth
 CA 91311
 Phone: (818) 701-4933
 Fax: (818) 701-4939

2SC3973B

NPN Silicon Power Transistors

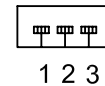
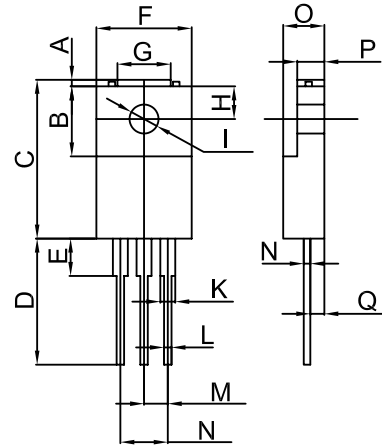
Features

- With TO-220Fa package
- High-voltage, high-speed applications

Maximum Ratings

Symbol	Rating	Rating	Unit
V_{CE0}	Collector-Emitter Voltage	500	V
V_{CBO}	Collector-Base Voltage	1000	V
V_{EBO}	Emitter-Base Voltage	7.0	V
I_C	Collector Current	7.0	A
P_C	Collector power dissipation	45	W
T_J	Junction Temperature	-55 to +150	°C
T_{STG}	Storage Temperature	-55 to +150	°C

TO-220Fa



Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Max	Units
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OFF CHARACTERISTICS

$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage ($I_C=50mA$, $I_B=0$)	500	---	Vdc
I_{CBO}	Collector-Base Cutoff Current ($V_{CB}=1000Vdc$, $I_E=0$)	---	100	μA
I_{EBO}	Emitter-Base Cutoff Current ($V_{EB}=7.0Vdc$, $I_C=0$)	---	100	μA

ON CHARACTERISTICS

h_{FE}	Forward Current Transfer ratio ($I_C=0.1A$, $V_{CE}=5.0Vdc$)	15	---	---
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage ($I_C=4.0A$, $I_B=0.8A$)	---	1.0	Vdc
$V_{BE(sat)}$	Base-Emitter Saturation Voltage ($I_C=4.0A$, $I_B=0.8A$)	---	1.5	Vdc

DIMENSIONS

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.02	.03	.60	.80	
B	.29	.30	7.30	7.70	
C	---	.67	---	17.00	
D	.53	---	13.50	---	
E	---	.16	---	4.0	
G	---	.40	---	10.20	
H	---	.22	---	5.70	
I	.16	.17	4.00	4.40	
J	.12	.13	3.00	3.20	∅
K	---	.06	---	1.50	
L	.03	.04	.70	.90	
M	2.84	.11	2.24	2.84	
N	.18	.22	4.58	5.58	
O	---	.17	---	4.40	
P	---	.11	---	2.90	
Q	---	.02	---	.50	
R	---	.06	---	1.50	