



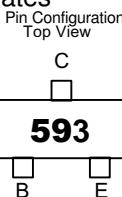
Micro Commercial Components
20736 Marilla Street Chatsworth
CA 91311
Phone: (818) 701-4933
Fax: (818) 701-4939

Features

- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Power dissipation: $P_{CM}=0.25W(T_{amb}=25^{\circ}C)$
- Collector current: $I_C=1A$
- Epoxy meets UL 94 V-0 flammability rating
- Moisure Sensitivity Level 1
- Halogen free available upon request by adding suffix "-HF"

Maximum Ratings*

Symbol	Rating	Rating	Unit
V_{CEO}	Collector-Emitter Voltage	100	V
V_{CBO}	Collector-Base Voltage	120	V
V_{EBO}	Emitter-Base Voltage	5.0	V
I_C	Collector Current,	1.0	A
P_{tot}	Power Dissipation at $T_{amb}=25^{\circ}C$	250	mW
T_J	Operating Junction Temperature	-55 to +150	°C
T_{STG}	Storage Temperature	-55 to +150	°C



Electrical Characteristics @ 25°C Unless Otherwise Specified

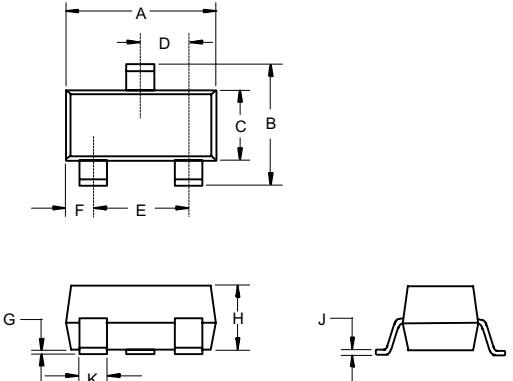
Symbol	Parameter	Min	Max	Units
OFF CHARACTERISTICS				
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage* ($I_C=10mAdc, I_B=0$)	100	---	Vdc
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage ($I_C=100\mu Adc, I_B=0$)	120	---	Vdc
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage ($I_E=100\mu Adc, I_C=0$)	5.0	---	Vdc
I_{CBO}	Collector Cutoff Current ($V_{CB}=100Vdc, I_E=0Vdc$)	---	0.1	uAdc
I_{EBO}	Emitter Cutoff Current ($V_{EB}=4.0Vdc, I_C=0$)	---	0.1	uAdc
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage* ($I_C=250mAdc, I_B=25mAdc$) ($I_C=500mAdc, I_B=50mAdc$)	---	0.2	Vdc
---	---	---	0.3	
$V_{BE(sat)}$	Base-Emitter Saturation Voltage* ($I_C=500mAdc, I_B=50mAdc$)	---	1.1	Vdc
$V_{BE(on)}$	Base-Emitter Voltage* ($V_{CE}=5Vdc, I_C=1mAdc$)	---	1	Vdc
h_{FE}	DC Current Gain ($V_{CE}=5Vdc, I_C=1mAdc$) ($V_{CE}=5Vdc, I_C=250mAdc$)* ($V_{CE}=5Vdc, I_C=0.5Adc$)* ($V_{CE}=5Vdc, I_C=1Adc$)*	100 100 100 50	---	---
h_{FE}	DC Current Gain ($V_{CE}=5Vdc, I_C=1mAdc$) ($V_{CE}=5Vdc, I_C=250mAdc$)* ($V_{CE}=5Vdc, I_C=0.5Adc$)* ($V_{CE}=5Vdc, I_C=1Adc$)*	100 100 100 50	300	---
f_T	Transition Frequency ($I_C=50mAdc, V_{CE}=10Vdc, f=100MHz$)	150	---	MHz
C_{ob}	Output Capacitance ($V_{CB}=10Vdc, f=1.0MHz$)	---	5	pF

* Measured under pulsed conditions. Pulse width=300us. Duty cycle $\leq 2\%$

FMMT593

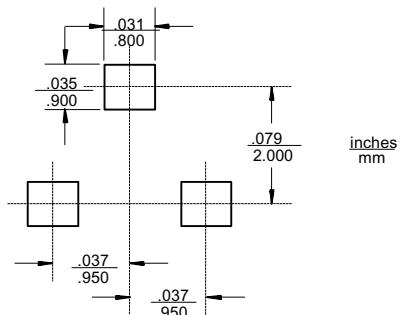
PNP
Plastic-Encapsulate
Transistor

SOT-23



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.110	.120	2.80	3.04	
B	.083	.104	2.10	2.64	
C	.047	.055	1.20	1.40	
D	.035	.041	.89	1.03	
E	.070	.081	1.78	2.05	
F	.018	.024	.45	.60	
G	.0005	.0039	.013	.100	
H	.035	.044	.89	1.12	
J	.003	.007	.085	.180	
K	.015	.020	.37	.51	

Suggested Solder Pad Layout





TM

Micro Commercial Components

Ordering Information :

Device	Packing
Part Number-TP	Tape & Reel; 3 Kpcs/ Reel

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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