



Micro Commercial Components



Micro Commercial Components
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FMMT491

Features

- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Power dissipation: $P_{CM}=0.5W(T_{amb}=25^{\circ}C)$
- Collector current: $I_C=1A$
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Marking:491

Maximum Ratings*

Symbol	Rating	Rating	Unit
V_{CEO}	Collector-Emitter Voltage	60	V
V_{CBO}	Collector-Base Voltage	80	V
V_{EBO}	Emitter-Base Voltage	5.0	V
I_C	Collector Current,	1.0	A
P_{tot}	Power Dissipation at $T_{amb}=25^{\circ}C$	500	mW
T_J	Operating Junction Temperature	-55 to +150	$^{\circ}C$
T_{STG}	Storage Temperature	-55 to +150	$^{\circ}C$

Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Max	Units
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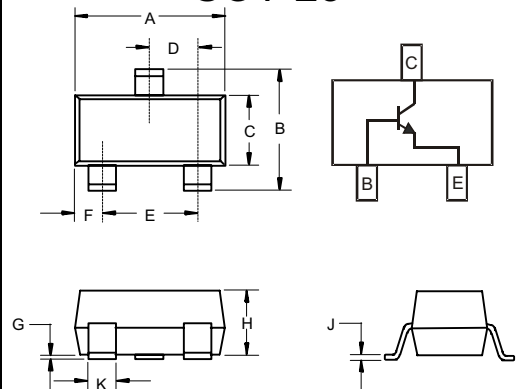
OFF CHARACTERISTICS

$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage* ($I_C=10mA_{dc}$, $I_B=0$)	60	---	Vdc
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage ($I_C=100\mu A_{dc}$, $I_E=0$)	80	---	Vdc
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage ($I_E=100\mu A_{dc}$, $I_C=0$)	5.0	---	Vdc
I_{CBO}	Collector Cutoff Current ($V_{CB}=60V_{dc}$, $I_E=0V_{dc}$)	---	0.1	μA_{dc}
I_{EBO}	Emitter Cutoff Current ($V_{EB}=4.0V_{dc}$, $I_C=0$)	---	0.1	μA_{dc}
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage* ($I_C=500mA_{dc}$, $I_B=50mA_{dc}$) ($I_C=1A_{dc}$, $I_B=100mA_{dc}$)	---	0.25 0.5	Vdc
$V_{BE(sat)}$	Base-Emitter Saturation Voltage* ($I_C=1A_{dc}$, $I_B=100mA_{dc}$)	---	1.1	Vdc
V_{BE}	Base-Emitter Voltage* ($V_{CE}=5V_{dc}$, $I_C=1A_{dc}$)	---	1	Vdc
h_{FE}	DC Current Gain ($V_{CE}=5V_{dc}$, $I_C=1mA_{dc}$) ($V_{CE}=5V_{dc}$, $I_C=500mA_{dc}$)* ($V_{CE}=5V_{dc}$, $I_C=1A_{dc}$)* ($V_{CE}=5V_{dc}$, $I_C=2A_{dc}$)*	100 100 80 30	--- 300 ---	---
f_T	Transition Frequency ($I_C=50mA_{dc}$, $V_{CE}=10V_{dc}$, $f=100MHz$)	150	---	MHz
C_{ob}	Output Capacitance ($V_{CB}=10V_{dc}$, $f=1.0MHz$)	---	10	pF

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

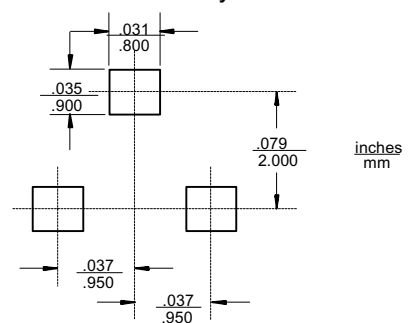
NPN Silicon Planar High Performance Transistor

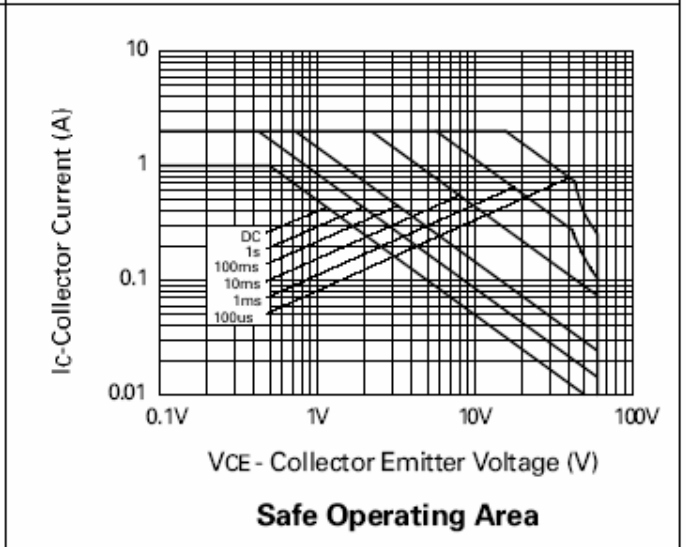
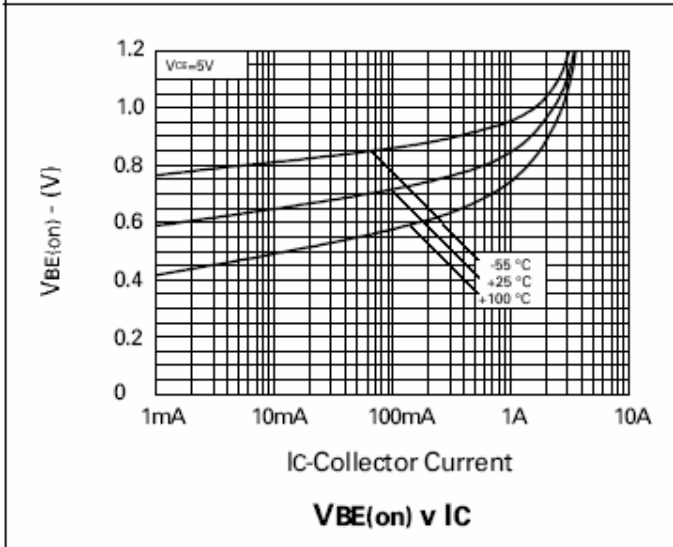
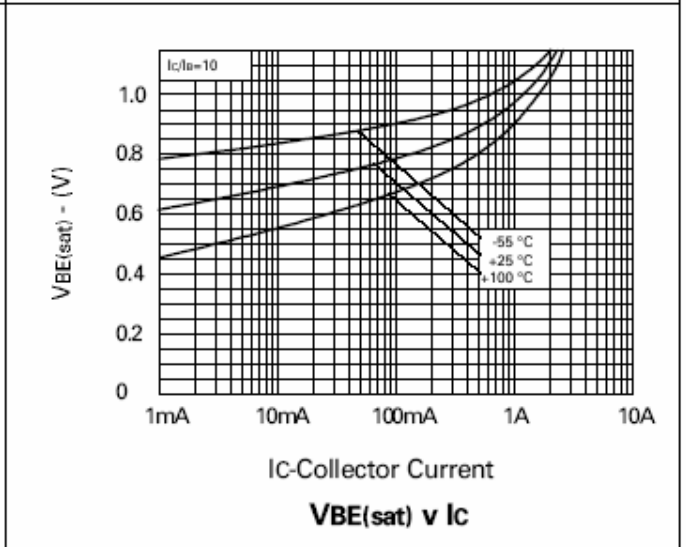
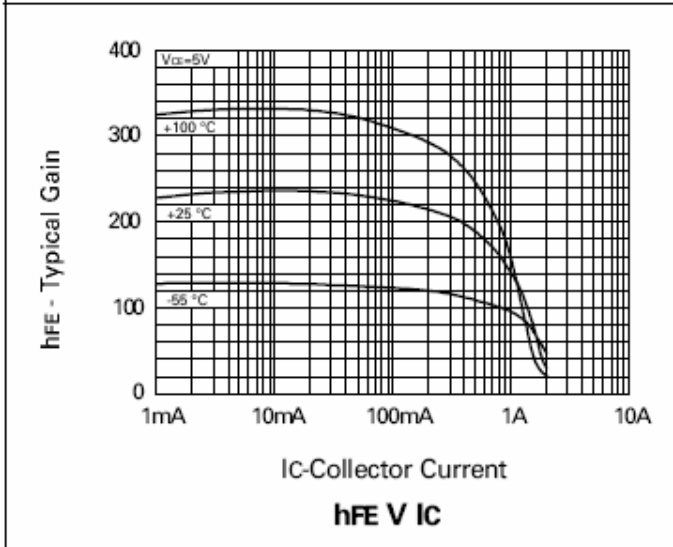
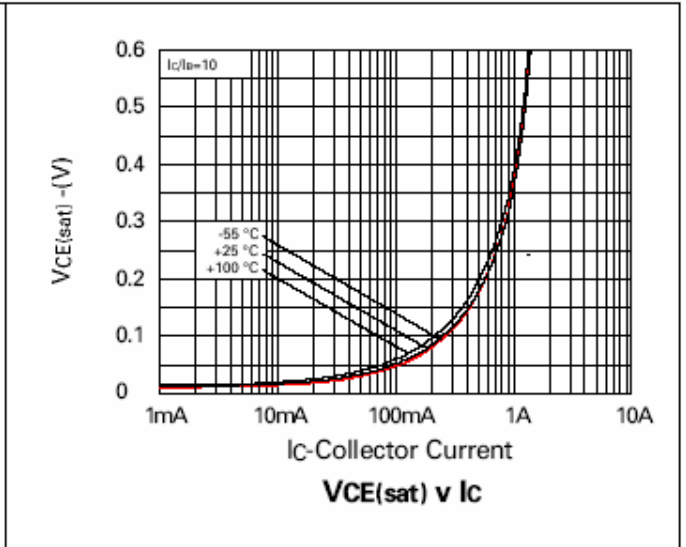
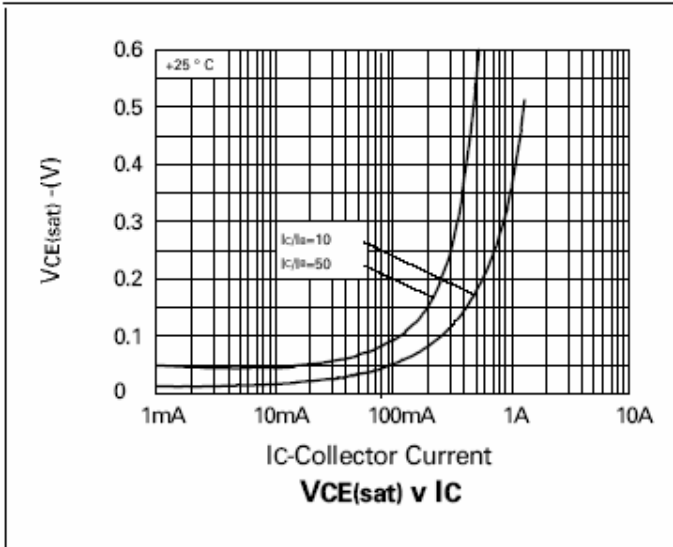
SOT-23



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	.110	.120	2.80	3.04	
B	.083	.098	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; 3Kpcs/Reel

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