



Micro Commercial Components

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MMBT918

Features

- Designed for VHF/UHF Amplifier applications.
- Marking : M3B
- Case Material: Molded Plastic. UL Flammability Classificatio Rating 94-0 and MSL Rating 1

NPN VHF/UHF Transistors

Maximum Ratings

Symbol	Rating	Rating	Unit
V_{CEO}	Collector-Emitter Voltage	15	V
V_{CBO}	Collector-Base Voltage	30	V
V_{EBO}	Emitter-Base Voltage	3.0	V
I_C	Collector Current-Continuous	50	A
P_C	Power dissipation ⁽¹⁾	225	W
T_J	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
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OFF CHARACTERISTICS

$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage ($I_C=3.0mA$, $I_E=0$)	15	---	Vdc
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage ($I_C=1.0mA$, $I_E=0$)	30	---	Vdc
$V_{(BR)EBO}$	Collector-Emitter Breakdown Voltage ($I_E=10uA$, $I_C=0$)	3.0	---	Vdc
I_{CBO}	Collector-Base Cutoff Current ($V_{CB}=15Vdc$, $I_E=0$)	---	50	nAdc

ON CHARACTERISTICS

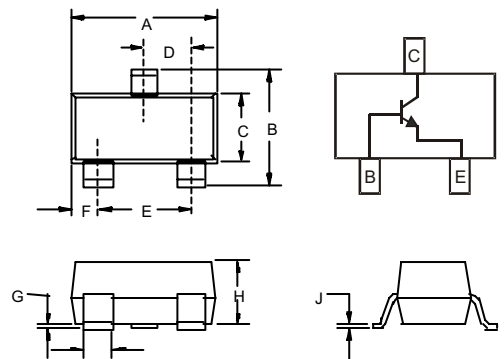
h_{FE}	DC Current Gain ($I_C=3.0mA$, $V_{CE}=1.0Vdc$)	20	---	---
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage ($I_C=10mA$, $I_B=1.0mA$)	---	0.4	Vdc
$V_{BE(sat)}$	Base-Emitter Saturation Voltage ($I_C=10mA$, $I_B=1.0mA$)	---	1.0	Vdc

SMALL SIGNAL CHARACTERISTICS

f_T	Current-Gain-Bandwidth Product ($V_{CE}=10V$, $f=100MHz$, $I_C=4.0mA$)	600	---	MHz
C_{obo}	Output Capacitance ($V_{CB}=10V$, $f=1.0MHz$, $I_E=0$)	---	1.7	pF
C_{ibo}	Input Capacitance ($V_{EB}=0.5V$, $f=1.0MHz$, $I_C=0$)	---	2.0	pF
NF	Noise Figure ($I_C=1.0mA$, $V_{CE}=6.0Vdc$, $R_s=50 OHMS$, $f=60MHz$)	---	6.0	dB

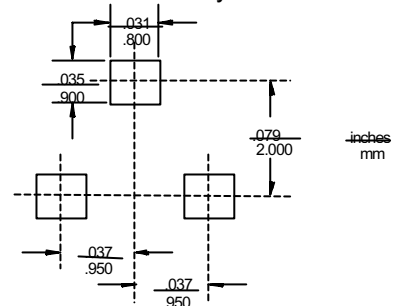
Note: 1. FR-5=1.0 X 0.75 X 0.062 in.

SOT-23



DIM	DIMENSIONS				NOTE
	INCHES		MM		
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





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Ordering Information

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

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