



MMBT918

VHF/UHF NPN SILICON TRANSISTOR

VOLTAGE 15 Volts **POWER** 225 mWatts

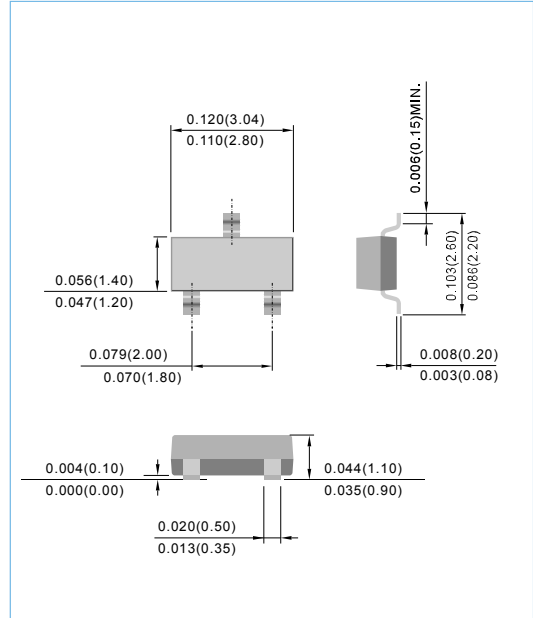
SOT-23 Unit: inch (mm)

FEATURES

- NPN silicon
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MECHANICAL DATA

- Case: SOT-23, Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.0084 grams
- Marking: R1B



ABSOLUTE RATINGS

PARAMETER	Symbol	Value	Units
Collector - Emitter Voltage	V_{CEO}	15	V
Collector - Base Voltage	V_{CBO}	30	V
Emitter - Base Voltage	V_{EBO}	3.0	V
Collector Current - Continuous	I_c	50	mA

THERMAL CHARACTERISTICS

PARAMETER	Symbol	Value	Units
Total Device Dissipation (Note1) $T_A=25^{\circ}C$ Derate above $25^{\circ}C$	P_D	225 1.8	mW mW/ $^{\circ}C$
Thermal Resistance , Junction to Ambient	$R_{\theta JA}$	556	$^{\circ}C/W$
Junction and Storage Temperature	T_J, T_{STG}	-55 to 150	$^{\circ}C$

Note 1: FR.4 = 70 x 60 x 1mm.



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ELECTRICAL CHARACTERISTICS

Characteristic	Symbol	Test Condition	MIN.	MAX.	Units
OFF CHARACTERISTICS					
Collector - Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=3.0mA, I_B=0$	15	-	V
Collector - Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=1.0\mu A, I_E=0$	30	-	V
Emitter - Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=10\mu A, I_C=0$	3.0	-	V
Collector Cutoff Current	I_{CBO}	$V_{CB}=15V, I_E=0$	-	50	nA
ON CHARACTERISTICS					
DC Current Gain	h_{FE}	$I_C=3.0mA, V_{CE}=1.0V$	20	-	-
Collector - Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C=10mA, I_B=1.0mA$	-	0.4	V
Base - Emitter Saturation Voltage	$V_{BE(SAT)}$	$I_C=10mA, I_B=1.0mA$	-	1.0	V
SMALL-SIGNAL CHARACTERISTICS					
Current Gain Bandwidth Product	f_T	$I_C=4.0mA, V_{CE}=10V, f=100MHz$	600	-	MHz
Output Capacitance	C_{obo}	$V_{CB}=0V, I_E=0, f=1.0MHz$ $V_{CB}=10V, I_E=0, f=1.0MHz$	-	3.0 1.7	pF
Input Capacitance	C_{ibo}	$V_{EB}=0.5V, I_C=0, f=1.0MHz$	-	2.0	pF

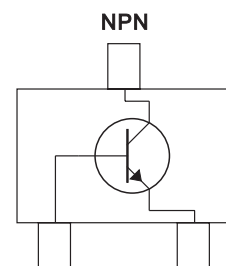
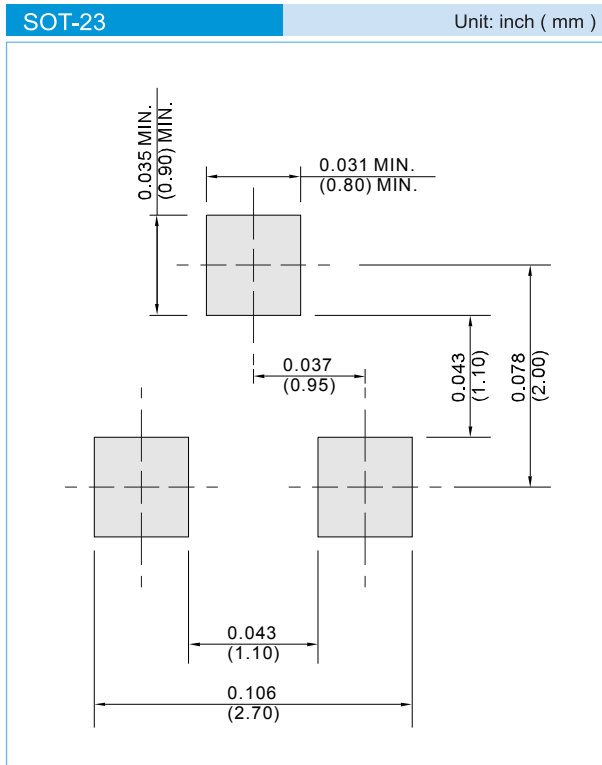


Fig.34



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MOUNTING PAD LAYOUT



ORDER INFORMATION

- Packing information
 - T/R - 12K per 13" plastic Reel
 - T/R - 3K per 7" plastic Reel



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Part No_packing code_Version

MMBT918_R1_00001

MMBT918_R2_00001

For example :

RB500V-40_R2_00001



Packing Code XX				Version Code XXXXX		
Packing type	1 st Code	Packing size code	2 nd Code	HF or RoHS	1 st Code	2 nd ~5 th Code
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			



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