# onsemi

# / n **B** 918 1 NPN Silicon

#### Features

These Devices are Pb Free, Halogen Free/BFR Free and are RoHS Compliant

#### MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Collector-Emitter Voltage	V <sub>CEO</sub>	15	Vdc
Collector-Base Voltage	V <sub>CBO</sub>	30	Vdc
Emitter-Base Voltage	V <sub>EBO</sub>	3.0	Vdc
Collector Current – Continuous	۱ <sub>C</sub>	50	mAdc

#### THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Total Device Dissipation FR-5 Board, (Note 1) T <sub>A</sub> = 25 C Derate above 25 C	P <sub>D</sub>	225 1.8	mW mW/ C
Thermal Resistance, Junction-to-Ambient	$R_{\thetaJA}$	556	C/W
Total Device Dissipation Alumina Substrate, (Note 2) T <sub>A</sub> = 25 C Derate above 25 C	P <sub>D</sub>	300 2.4	mW mW/ C
Thermal Resistance, Junction-to-Ambient	$R_{\thetaJA}$	417	C/W
Junction and Storage Temperature	T <sub>J</sub> , T <sub>stg</sub>	-55 to +150	С

Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.

1.  $FR-5 = 1.0 \times 0.75 \times 0.062$  in.

2. Alumina =  $0.4 \times 0.3 \times 0.024$  in. 99.5% alumina.

## MMBT918LT1G

### **ELECTRICAL CHARACTERISTICS** ( $T_A = 25$ C unless otherwise noted)

Characteristic		Min	Max	Unit

OFF CHARACTERISTICS

Collector – Emitter Breakdown Voltage (I



#### SOT 23 (TO 236) 2.90x1.30x1.00 1.90P CASE 318 ISSUE AU

DATE 14 AUG 2024

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	STYLE 6: PIN 1. BASE 2. EMITTER 3. COLLECTOR	STYLE 7: PIN 1. EMITTER 2. BASE 3. COLLECTOR	STYLE 8: PIN 1. ANODE 2. NO CONNECTION 3. CATHODE	I	
STYLE 9:	STYLE 10:	STYLE 11:	STYLE 12:	STYLE 13:	STYLE 14:
PIN 1. ANODE	PIN 1. DRAIN	PIN 1. ANODE	PIN 1. CATHODE	PIN 1. SOURCE	PIN 1. CATHODE
2. ANODE	2. SOURCE	2. CATHODE	2. CATHODE	2. DRAIN	2. GATE
3. CATHODE	3. GATE	3. CATHODE-ANODE	3. ANODE	3. GATE	3. ANODE
STYLE 15:	STYLE 16:	STYLE 17:	STYLE 18:	STYLE 19:	
PIN 1. GATE	PIN 1. ANODE	PIN 1. NO CONNECTION	PIN 1. NO CONNECTION	PIN 1. CATHODE	
2. CATHODE	2. CATHODE	2. ANODE	2. CATHODE	2. ANODE	
3. ANODE	3. CATHODE	3. CATHODE	3. ANODE	3. CATHODE-ANODE	
	STYLE 22: PIN 1. RETURN 2. OUTPUT 3. INPUT	STYLE 23: PIN 1. ANODE 2. ANODE 3. CATHODE 3.			

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