

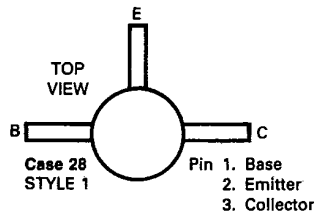
6367255 MOTOROLA SC (DIODES/OPTO)

34C 38206 D

T-31-17

MICRO-T (continued)

MMT918 — NPN VHF/UHF TRANSISTOR



- designed for use in VHF and UHF amplifier, mixer and oscillator applications.

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Collector-Emitter Voltage	V_{CEO}	15	Vdc
Collector-Base Voltage	V_{CB}	30	Vdc
Emitter-Base Voltage	V_{EB}	3.0	Vdc
Collector Current — Continuous	I_C	200	mAdc
Total Power Dissipation @ $T_A = 25^\circ\text{C}$ Derate above 25°C	P_D	250 2.0	mW mW/ $^\circ\text{C}$
Operating and Storage Junction Temperature Range	T_J, T_{stg}	-55 to +150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	0.50	$^\circ\text{C}/\text{mW}$

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Parameter	Test Conditions	Min	Max	Unit
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OFF CHARACTERISTICS

BV_{CEO}	$I_C = 3.0 \text{ mAdc}, I_B = 0$	15	—	Vdc
BV_{CBO}	$I_C = 1.0 \text{ }\mu\text{Adc}, I_E = 0$	30	—	Vdc
BV_{EBO}	$I_E = 10 \text{ }\mu\text{Adc}, I_C = 0$	3.0	—	Vdc
I_{CBO}	$V_{CB} = 15 \text{ Vdc}, I_E = 0$	—	10	nAdc

ON CHARACTERISTICS

h_{FE}	$I_C = 3.0 \text{ mAdc}, V_{CE} = 1.0 \text{ Vdc}$	20	—	—
$V_{CE(sat)}$	$I_C = 10 \text{ mAdc}, I_B = 1.0 \text{ mAdc}$	—	0.4	Vdc
$V_{BE(sat)}$	$I_C = 10 \text{ mAdc}, I_B = 1.0 \text{ mAdc}$	—	1.0	Vdc

DYNAMIC CHARACTERISTICS

f_T	$I_C = 4.0 \text{ mAdc}, V_{CE} = 10 \text{ Vdc}, f = 100 \text{ MHz}$	600	—	MHz
C_{ob}	$V_{CB} = 10 \text{ Vdc}, I_E = 0, f = 140 \text{ kHz}$	—	1.7	pF
C_{ib}	$V_{EB} = 0.5 \text{ Vdc}, I_C = 0, f = 140 \text{ kHz}$	—	2.0	pF
NF	$I_C = 1.0 \text{ mAdc}, V_{CE} = 6.0 \text{ Vdc}, f = 60 \text{ MHz}$ $R_S = 400 \text{ }\Omega$	—	6.0	dB

(1) Pulse Test: Pulse Width $\leq 300 \text{ }\mu\text{s}$, Duty Cycle $\leq 2.0\%$.