

# SOT323 NPN SILICON PLANAR VHF/UHF TRANSISTOR

## ZUMT918

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PARTMARKING DETAIL – T5



### ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	$V_{CBO}$	30	V
Collector-Emitter Voltage	$V_{CEO}$	15	V
Emitter-Base Voltage	$V_{EBO}$	3	V
Continuous Collector Current	$I_C$	100	mA
Power Dissipation at $T_{amb}=25^{\circ}C$	$P_{tot}$	330	mW
Operating and Storage Temperature Range	$T_j; T_{stg}$	-55 to +150	$^{\circ}C$

### ELECTRICAL CHARACTERISTICS (at $T_{amb} = 25^{\circ}C$ ).

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	30			V	$I_C=1\mu A, I_E=0$
Collector-Emitter Sustaining Voltage	$V_{CEO(sus)}$	15			V	$I_C=3mA, I_B=0^*$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	3			V	$I_E=10\mu A, I_C=0$
Collector Cut-Off Current	$I_{CBO}$			0.05	$\mu A$	$V_{CB}=15V, I_E=0$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			0.4	V	$I_C=10mA, I_B=1mA$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$			1.0	V	$I_C=10mA, I_B=1mA$
Static Forward Current Transfer Ratio	$h_{FE}$	20				$I_C=3mA, V_{CE}=1V$
Transition Frequency	$f_T$	600			MHz	$I_C=4mA, V_{CE}=10V$ $f=100MHz$
Output Capacitance	$C_{obo}$			3.0 1.7	pF pF	$V_{CB}=0V, f=1MHz$ $V_{CB}=10V, f=1MHz$
Input Capacitance	$C_{ibo}$			1.6	pF	$V_{EB}=0.5V, f=1MHz$
Noise Figure	N			6.0	dB	$V_{CE}=6V, I_C=1mA$ $f=60MHz, R_G=400\Omega$
Common Emitter Power Gain	$G_{pe}$		15		dB	$V_{CB}=12V, I_C=6mA$ $f=200MHz$

\*Measured under pulsed conditions. Pulse Width=300 $\mu s$ . Duty cycle  $\leq 2\%$   
Spice parameter data is available upon request for this device

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