SOT323 NPN SILICON PLANAR VHF/UHF TRANSISTOR

ZUMT918

ISSUE 1 – DECEMBER 1998

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°C	P_{tot}	330	mW
Operating and Storage Temperature Range	T_j:T_{stg}	-55 to +150	°C

ELECTRICAL CHARACTERISTICS (at T_{amb} = 25°C).

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	30			V	I_C=1μA, 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=10μA, I_C=0
Collector Cut-Off Current	I_{CBO}			0.05	μA	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=400Ω
Common Emitter Power Gain	G_{pe}		15		dB	V_{CB}=12V, I_C=6mA f=200MHz

*Measured under pulsed conditions. Pulse Width=300μs. Duty cycle ≤2%
Spice parameter data is available upon request for this device