

VF3

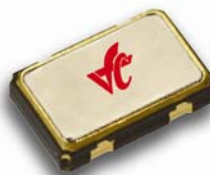
XO Low Jitter

5x7mm SMD, HCMOS-TTL



Features

- HCMOS – TTL Compatible
- 3.3V Supply Voltage
- $\pm 5\%$ Duty Cycle
- Tristate control standard



RoHS Status

RoHS
6/6

Electrical Specifications

Parameter	Symbol	Condition	Min	Typ	Max	Unit	Note
Frequency Range	F		0.012		133	MHz	
Frequency Stability	$\Delta F/F$	Overall conditions including: calibration, temp., aging 10 yrs, shock, vibration			± 100	ppm	See Table 1
Input Voltage	Vcc		3.15	3.30	3.45	V	
Input Current	Icc	$0.012\text{MHz} \leq F_o < 0.048\text{MHz}$ $0.048\text{MHz} \leq F_o < 1.5\text{MHz}$ $1.5\text{MHz} \leq F_o < 20\text{MHz}$ $20\text{MHz} \leq F_o < 50\text{MHz}$ $50\text{MHz} \leq F_o < 70\text{MHz}$ $70\text{MHz} \leq F_o < 125\text{MHz}$ $125\text{MHz} \leq F_o < 133\text{MHz}$			5 5 7 20 30 30 40	mA	
Load		10 LSTTL gates or 15pF Typ, 30pF Max.					
Duty Cycle		@50% Vcc	45	50	55	%	
Rise / Fall Time	Tr/Tf	$0.012\text{MHz} \leq F_o < 1.0\text{MHz}$ $1.0\text{MHz} \leq F_o < 20\text{MHz}$ $20\text{MHz} \leq F_o < 50\text{MHz}$ $50\text{MHz} \leq F_o < 70\text{MHz}$ $70\text{MHz} \leq F_o < 125\text{MHz}$ $125\text{MHz} \leq F_o < 133\text{MHz}$			200 10 6 3 3 3	ns	
Logic "1" Level	Voh	Max Load	0.9Vcc			V	
Logic "0" Level	Vol	Max Load			0.1Vcc	V	
Start-up Time	Ts			3	10	ms	
Phase Jitter		1 σ		0.5	1	ps	fj>1KHz
Tristate Function		Input HIGH (>2.5V) or floating: Active Input LOW (0.5V): Infinite Impedance					



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Absolute Maximum Ratings

Parameter	Symbol	Condition	Min	Typ	Max	Unit	Note
Input Break Down Voltage	V _{cc}		-0.5		7.0	V	
Storage Temp.	T _s		-55		+125	°C	

Environmental and Mechanical Conditions

Parameter	Condition
Operating Temperature Range	-10°C to +70°C (-40°C to +85°C available)
Mechanical Shock	Per MIL-STD-202, Method 213, Cond. E
Thermal Shock	Per MIL-STD-883, Method 1011, Cond. A
Vibration	Per MIL-STD-883, Method 2007, Cond. A
Soldering Conditions	260°C for 10s Max., or 230°C for 90s
Hermetic Seal	Leak rate less than 5×10^{-8} atm.cc/s of helium
Flammability	UL94V-0 flame resistant
Terminal Finish	2micron Gold over 60 micron Nickel

Available Frequency Stabilities over Operating Temperature Ranges

Code	Temperature Range	B	A	S
		±50ppm	±25ppm	±20ppm
	-10°C to 70°C	*	*	○
1	-40°C to 85°C	*	*	○

* Includes aging

○ Does not include aging



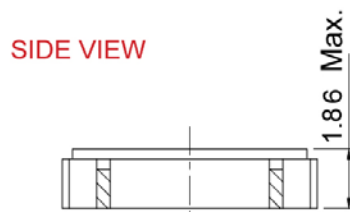
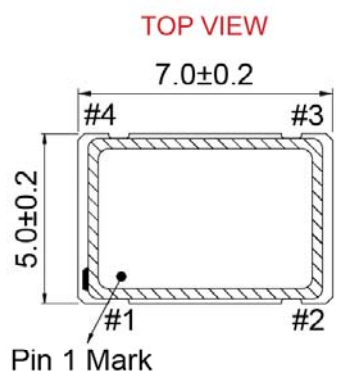
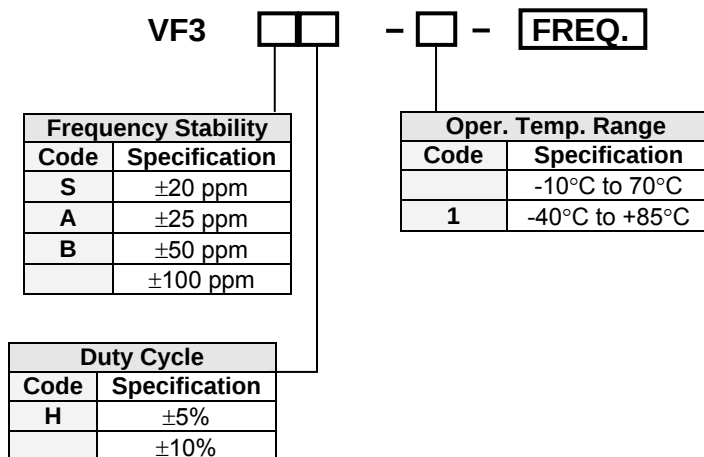
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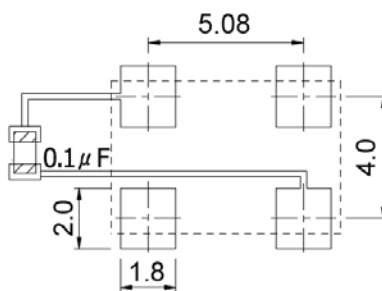
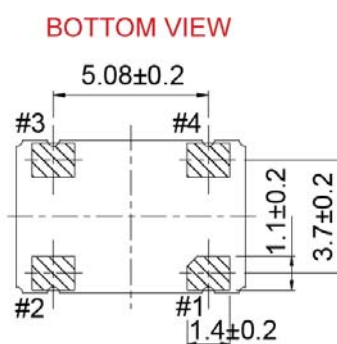
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How to Order



UNIT: mm



Recommended soldering pattern

Pin #	Connection
Pin 1	Tristate Control
Pin 2	Ground
Pin 3	Output
Pin 4	Vcc

