

VF266

XO Low Jitter

5x7mm SMD, LVPECL



Features

- 25MHz to 320MHz frequency range
- Tight duty cycle
- <1ps jitter over 12kHz ~ 20MHz
- Output enable on pin 1



RoHS Status

RoHS
6/6

Applications

- Optical Networking, SONET / SDH
- 10 Gigabit Ethernet
- Broadband Access

For new designs, [VFXO401](#) is recommended

Electrical Specifications

Parameter	Symbol	Condition	Min	Typ	Max	Unit	Note
Frequency Range	F		25		320	MHz	
Frequency Stability	$\Delta F/F$	Over all conditions of :- Operating Temperature; Supply Voltage; 10 Years Aging; shock & vibration			± 20 ± 25 ± 50 ± 100	ppm	Order Code S Order Code A Order Code B standard
Operating Temperature	T		0° -40°		+70° +85°	°C	
Output			LVPECL				
Supply Voltage	V _{CC}	LVPECL	3.15	3.30	3.45	V	
Input Current	I _{CC}	50 Ohms Load		55	88	mA	



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Electrical Specifications

Parameter	Symbol	Condition	Min	Typ	Max	Unit	Note
Load	50 Ohms to $V_{CC}-2V$ or Thevenin Equivalent Bias Required						
Duty Cycle			47.5 45	50 50	52.5 55	%	Order Code HH Standard
Rise / Fall Time	Tr/Tf	20% to 80%		0.5	0.8	ns	
Logic "1" Level	V_{OH}	$V_{CC} = 3.3V$	2.275 2.215	2.35 2.295	2.42 2.42	V	0~85°C <0°C
Logic "0" Level	V_{OL}	$V_{CC} = 3.3V$	1.49 1.47	1.6 1.605	1.68 1.745	V	0~85°C <0°C
Start up time				2	10	ms	
Jitter 12kHz~20MHz	1σ				0.7	ps	
Enable "1"	V_{IH}	Outputs Active	$0.7V_{CC}$	-	-	V	Pin 1 may float
Disable "0"	V_{IL}	Outputs Disabled	-	-	$0.3V_{CC}$	V	

Absolute Maximum Ratings

Parameter	Symbol	Condition	Min	Typ	Max	Unit	Note
Supply Break Down Voltage	V_{CC}		-0.5		4.6	V	
Storage Temperature	T_S		-55		+125°	°C	
Junction Temperature	T_J				+125°	°C	

Environmental and Mechanical Conditions

Parameter	Condition
Mechanical Shock	Per MIL-STD-202, Method 213, Condition E
Thermal Shock	Per MIL-STD-883, Method 1011, Condition A
Vibration	Per MIL-STD-883, Method 2007, Condition A
Soldering Conditions	260°C for 10s max
Hermetic Seal	Leak rate less than 5×10^{-8} atm.cc/s of helium

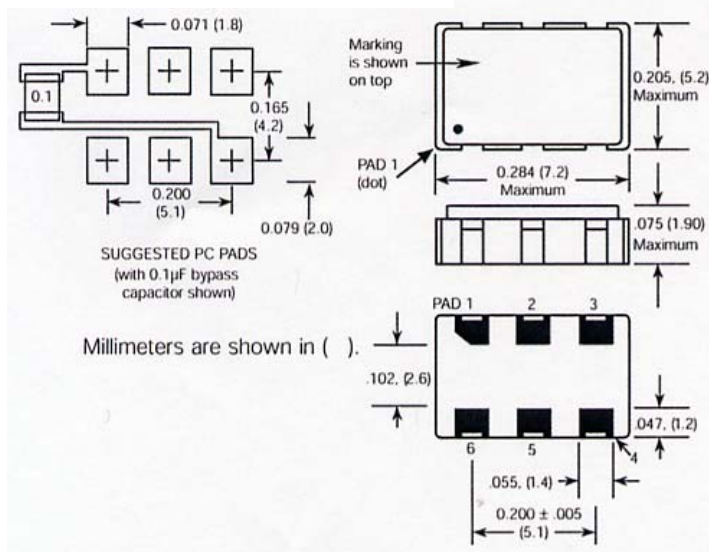
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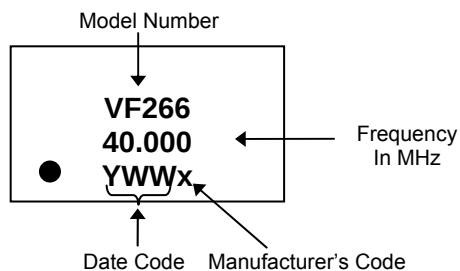
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Pin Assignments

Pin #	Connection
1	OE
2	N/C
3	Case GND
4	Output
5	Output
6	V _{CC}



Marking Specification



How to Order

VF266 - - FREQUENCY, MHz

Stability

Code	Specification
S	20 ppm
A	25 ppm
B	50 ppm
	100ppm std.

Duty Cycle

Code	Specification
HH	±2.5%
	±5% std.

Temp. Range

Code	Specification
	0~70°C std.
1	-40~+85°C