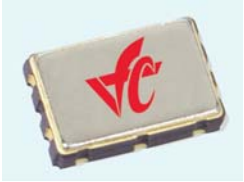
VF266
XO Low Jitter
5x7mm SMD, LVPECL

Valpey Fisher Corporation
Uncompromised Precision

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	ΔF/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	Vcc	LVPECL	3.15	3.30	3.45	V	
Input Current	Icc	50 Ohm Load		55	88	mA	

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Parameter	Symbol	Condition	Min	Typ	Max	Unit	Note
Load	50 Ohm to Vcc-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	Voh	Vcc = 3.3V	2.275	2.35	2.42	V	
Logic "0" Level	Vol	Vcc = 3.3V	1.49	1.60	1.68	V	
Start up time				2	10	ms	
Jitter 12KHz~20MHz	1σ				0.7	ps	
Enable "1"	V_{IH}	Outputs Active	0.7Vcc	-	-	V	Pin 1 may float
Disable "0"	V_{IL}	Outputs Disabled	-	-	0.3Vcc	V	

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	Output
	0~70°C std.
1	-40~+85°C

Absolute Maximum Ratings

Parameter	Symbol	Condition	Min	Typ	Max	Unit	Note
Supply Break Down Voltage	Vcc		-0.5		4.6	V	
Storage Temperature	Ts		-55		+125°	°C	
Junction Temperature	Tj				+125°	°C	

Environmental and Mechanical

Parameter	Specification
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 $5x10^{-8}$ atm.cc/s of helium

Pin #	Connection
1	OE
2	N/C
3	Case GND
4	Output
5	$\overline{\text{Output}}$
6	Vcc