

# VFXO302

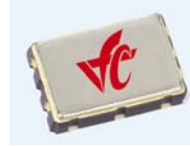
## XO Low Jitter 2.5V, 3.3V

### 5x3.2mm SMD, LVPECL, LVDS



#### Features

- 25MHz to 270MHz Frequency Range LVPECL
- 80MHz to 270MHz Frequency Range LVDS
- Low Phase Noise
- 0.7ps jitter over 12KHz ~ 20MHz



#### RoHS Status



#### Applications

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

#### Electrical Specifications

Parameter	Symbol	Condition	Min	Typ	Max	Unit	Note
Frequency Range	F	LVPECL LVDS	25 80		270	MHz	
Frequency Stability	$\Delta F/F$	Over all conditions of :- Operating Temperature; Supply Voltage; 10 Years Aging; shock & vibration			$\pm 50$ $\pm 25$	ppm	Order Code B Order Code C
Operating Temperature	T		0° -40°		+70° +85°	°C	Order Code B Order Code G
Output		LVPECL LVDS					Order Code L Order Code D
Supply Voltage	Vcc		3.15 2.375	3.3 2.5	3.45 2.625	V	Order Code E Order Code G
Integrated Jitter RMS 12KHz to 20MHz				0.3	0.7	ps	



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#### Electrical Specifications

Parameter	Symbol	Condition	Min	Typ	Max	Unit	Note
Symmetry			45		55	%	
Phase Noise		10Hz		-66		dBc/Hz	@77.76MHz
		100Hz		-96			
		1KHz		-124		dBc/Hz	@155.52MHz
		10KHz		-140			
		100KHz		-145			
		10Hz		-62			
Input Current	I <sub>CC</sub>	LVPECL		55	88	mA	
		LVDS		45	66		
Load	50 Ohm to V <sub>DD</sub> -2V (PECL) 100 Ohm (LVDS)						
HIGH Level Output Voltage	V <sub>OH</sub>	3.3V LVPECL	2.215		2.42	V	40°C to +85°C
		2.5V LVPECL	1.415		1.76		
		LVDS	-	1.43	1.60	V	40°C to +85°C
LOW Level Output Voltage	V <sub>OL</sub>	3.3V LVPECL	1.47		1.745	V	40°C to +85°C
		2.5V LVPECL	0.67		1.195		
		LVDS	0.90	1.10	-	V	40°C to +85°C
Output Differential Voltage	V <sub>OD</sub>		247	355	454	mV	LVDS
Offset Voltage	V <sub>OS</sub>		1.125	1.2	1.375	V	LVDS
Rise / Fall Time	T <sub>r</sub> /T <sub>f</sub>	20% to 80%		0.7	1.0	ns	
Tristate	"1": Output Enable – Pin 1 may float or 0.7 V <sub>CC</sub> min. Enable delay time 2ms max. "0": Tristate – Pin 1 requires 0.3 V <sub>CC</sub> max. Disable delay time 200ns max.						



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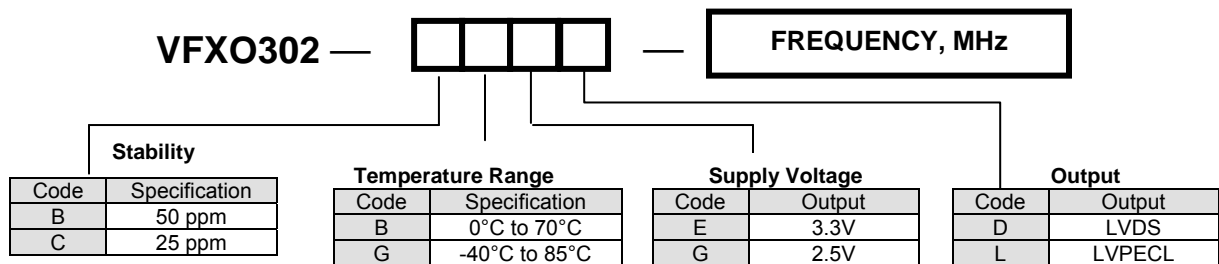
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### Absolute Maximum Ratings

Parameter	Symbol	Condition	Min	Typ	Max	Unit	Note
Soldering Temperature		Reflow Soldering, 10s max			260	°C	
Storage Temperature	Ts		-55		+125°	°C	
ESD Protection		Human Body Model			2	kV	

### How to Order



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#### Environmental and Mechanical Conditions

Parameter	Specification
Shock	1000 Gs, 0.35ms, ½ sine wave, 3 shocks in each plane
Humidity	Resistant to 85 °R.H. at 85 °C
Vibration	10-2000 Hz of 0.06" d.a. or 20 Gs, whichever is less
Leak	MIL STD 883, Method 1014, Condition A1
Case	Ceramic with hermetic resistance-welded metal lid
Pads	Solderable gold over nickel
Marking	Epoxy ink or laser engraved
Resistance to Solvents	MIL STD 202, Method 215

Pin #	Connection
1	E/D (Tristate)
2	N/C
3	Case, GND
4	Output
5	Output
6	Supply Voltage Vcc

