

VFXO302

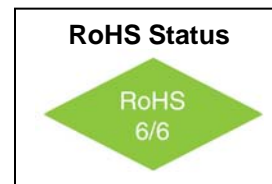
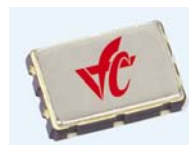
XO Low Jitter 2.5V, 3.3V

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



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			± 50 ± 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	



VFXO302
XO Low Jitter 2.5V, 3.3V
5x3.2mm SMD, LVPECL, LVDS



Electrical Specifications

Parameter	Symbol	Condition	Min	Typ	Max	Unit	Note
Symmetry			45		55	%	
Phase Noise		10Hz 100Hz 1KHz 10KHz 100KHz		-66 -96 -124 -140 -145		dBc/Hz	@77.76MHz
		10Hz 100Hz 1KHz 10KHz 100KHz		-62 -92 -120 -140 -145		dBc/Hz	@155.52MHz
Input Current	I _{CC}	LVPECL LVDS		55 45	88 66	mA	
Load	50 Ohm to V _{DD} -2V (PECL) 100 Ohm (LVDS)						
HIGH Level Output Voltage	V _{OH}	3.3V LVPECL 2.5V LVPECL	2.215 1.415		2.42 1.76	V	40°C to +85°C
		LVDS	-	1.43	1.60	V	40°C to +85°C
LOW Level Output Voltage	V _{OL}	3.3V LVPECL 2.5V LVPECL	1.47 0.67		1.745 1.195	V	40°C to +85°C
		LVDS	0.90	1.10	-	V	40°C to +85°C
Output Differential Voltage	V _{OD}		247	355	454	mV	LVDS
Offset Voltage	V _{OS}		1.125	1.2	1.375	V	LVDS
Rise / Fall Time	T _r /T _f	20% to 80%		0.7	1.0	ns	
Tristate	"1": Output Enable – Pin 1 may float or 0.7 V _{CC} min. Enable delay time 2ms max. "0": Tristate – Pin 1 requires 0.3 V _{CC} max. Disable delay time 200ns max.						



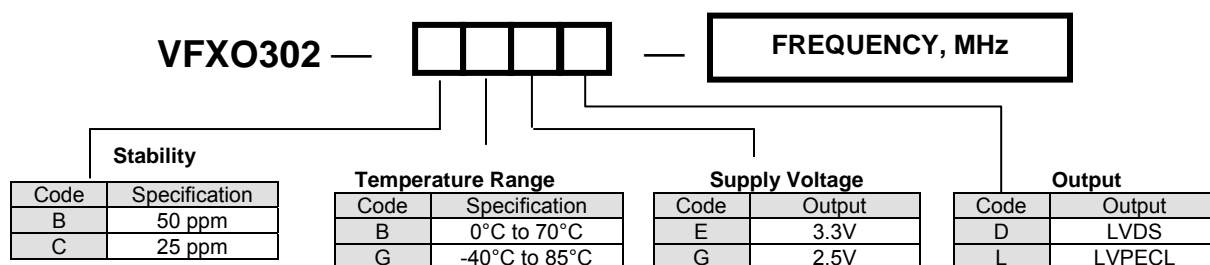
VFXO302
XO Low Jitter 2.5V, 3.3V
5x3.2mm SMD, LVPECL, LVDS



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



VFXO302
XO Low Jitter 2.5V, 3.3V
5x3.2mm SMD, LVPECL, LVDS



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

