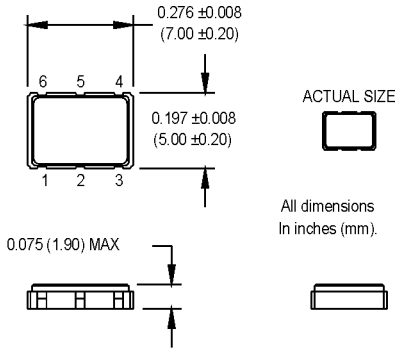
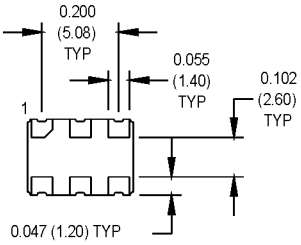
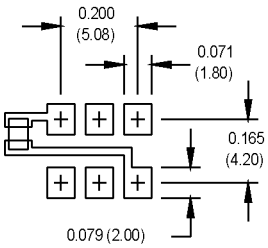
UVC Ultra Versatile Clock Oscillator





SUGGESTED SOLDER PAD LAYOUT



Ordering Information

UVC 1 8 R L N 00.0000 MHz

- **Product Series**
- **Temperature Range**
  - **1:** 0°C to +70°C
  - **2:** -40°C to +85°C
  - **6:** -20°C to +70°C
  - **8:** 0°C to +50°C
- **Stability**
  - **3:** ±100 ppm
  - **4:** ±50 ppm
  - **6:** ±25 ppm
  - **8:** ±20 ppm
- **Output Type**
  - **R:** Complementary Tri-state
  - **T:** Single Tri-state
  - **Z:** Complementary Non-Tri-state
  - **X:** Single Non-Tri-state
- **Symmetry/Output Logic Type**
  - **L:** 45/55% LVDS
  - **P:** 45/55% PECL
  - **H:** 40/60% LVDS
  - **Q:** 40/60% PECL
- **Package/Lead Configurations**
  - **N:** Leadless Ceramic (6 pads)
- **Frequency (customer specified)**

Pin Connections

PIN	FUNCTION
1	Tri-state
2	N/C
3	Ground
4	Output1/ Q
5	Output2/ $\overline{Q}$
6	+Vdd

	PARAMETER	Symbol	Min.	Typ.	Max.	Units	Condition
Electrical Specifications	Frequency Range	F	0.75		800	MHz	
	Frequency Stability	ΔF/F	(See Ordering Information)				See Note 1
	Operating Temperature	Ts	-40		+85	°C	See ordering information
	Storage Temperature	TA	-55		+125	°C	
	Input Voltage	Vcc	3.15	3.3	3.45	V	
	PECL Input Current	Icc					See Note 2
	0.75 MHz to 24 MHz				60	mA	
	24 MHz to 160 MHz				100	mA	
	160 MHz to 800 MHz				120	mA	
	LVDS Input Current	Icc					See Note 3
	0.75 MHz to 24 MHz				30	mA	
	24 MHz to 96 MHz				50	mA	
	96 MHz to 800 MHz				80	mA	
	Symmetry (Duty Cycle)		40	50	60	%	At Vcc -1.3 VDC (PECL)
	(Per Symmetry Code)		40	50	60	%	At 1.25 VDC (LVDS)
	Load		50 Ohms to Vcc -2 VDC				PECL waveform
			50 Ohm differential load				LVDS waveform
	Rise/Fall Time	Tr/Tf		0.35	0.55	ns	At 20/80%
	Logic "1" Level	Voh	Vcc -1.02			V	PECL
			1.375			V	LVDS
	Logic "0" Level	Vol			Vcc -1.63	V	PECL
					1.125	V	LVDS
	Phase Jitter	ϕJ		8	15	ps RMS	Cycle to Cycle
	Phase Jitter	ϕJ		3	5	ps RMS	Integrated 12 kHz - 20 MHz
	Peak to Peak Jitter (+/-)	Tj		21	35	ps	@ BER 1E-12
	Differential Voltage	Vo	250	340	450	mV	LVDS
	Tri-state Output "On"	OE	2.8			V	Pin 1 voltage
	Tri-state Output "Off"	OE			0.6	V	Pin 1 voltage
Environmental	Mechanical Shock	Per MIL-STD-202, Method 213, Condition C					
	Vibration	Per MIL-STD-202, Method 201 & 204					
	Reflow Solder Conditions	220°C for 10 s max.					
	Hermeticity	Per MIL-STD-202, Method 112 (1 x 10^{-8} atm.cc/s of helium)					
	Solderability	Per EIAJ-STD-002					

1. Inclusive of initial tolerance, deviation over temperature, shock, vibration, voltage, and aging.
2. See load circuit diagram #5 on page 137.
3. See load circuit diagram #9 on page 137.

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