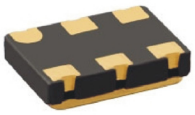
UVC Series

5x7 mm, 3.3 Volt, LVPECL/LVDS, Clock Oscillators



RoHS Compliant

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
- 7: -0°C to +85°C
- 8: 0°C to +50°C

Stability
- 3: ±100 ppm
- 4: ±50 ppm
- 6: ±25 ppm
- 8: ±20 ppm

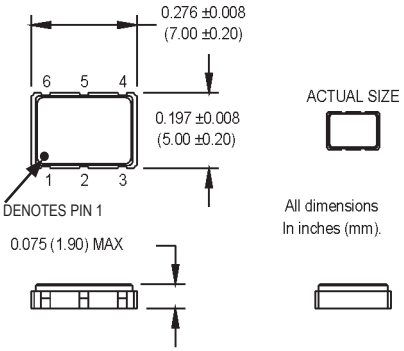
Output Type
- R: Complementary Enable
- Z: Complementary w/o Enable

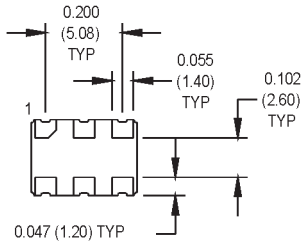
Symmetry/Output Logic Type
- L: 45/55% LVDS
- P: 45/55% PECL
- H: 40/60% LVDS
- Q: 40/60% PECL

Package/Lead Configurations
- N: Leadless Ceramic (6 pads)

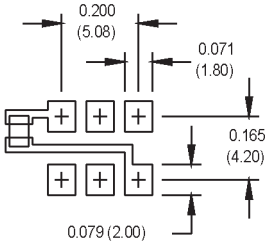
Frequency (customer specified)

M2022Sxxx - Contact factory for datasheet.





SUGGESTED SOLDER PAD LAYOUT



Pad Connections

Pad	Function
1	Enable/Disable for "R" Output Type or N/C for "Z" Output Type
2	N/C
3	Ground
4	Output Q
5	Complementary Output $\overline{Q}$
6	+ Vdd

	PARAMETER	Symbol	Min.	Typ.	Max.	Units	Condition/Notes
Electrical Specifications	Frequency Range	F	0.75		800	MHz	
	Operating Temperature	TA	(See ordering information)				
	Storage Temperature	TS	-55		+125	°C	
	Frequency Stability	ΔF/F	(See ordering information)				See Note 1
	Aging 1st Year Thereafter (per year)		 -3 -1		 +3 +1	 ppm ppm	
	Input Voltage	Vcc	3.135	3.3	3.465	V	
	PECL Input Current	Icc			70 100 110	mA mA mA	0.75 to 24 MHz 24 to 96 MHz 96 to 800 MHz
	LVDS Input Current	Icc			30 60 60	mA mA mA	0.75 to 24 MHz 24 to 96 MHz 96 to 800 MHz
	Output Type						PECL/LVDS
	Load		50 Ohms to Vcc - 2 VCD 100 Ohm differential load				See Note 2 PECL Waveform LVDS Waveform
	Symmetry (Duty Cycle)		(See ordering information)				@ 50% of waveform
	Output Skew				200	ps	PECL
	Differential Voltage	Vod	250	350	450	mV	LVDS
	Logic "1" Level	Voh	Vcc -1.02			V	PECL
	Logic "0" Level	Vol			Vcc -1.63	V	PECL
	Rise/Fall Time	Tr/Tf		0.35 0.50	0.55 1.0	ns ns	@ 20/80% LVPECL @ 20/80% LVDS
	Enable Function		80% Vcc min or N/C: output active 20% Vcc max: output disables to high-Z				Output Option R
	Start up Time				10	ms	
	Phase Jitter (Typical)	ϕJ		3	5	ps RMS	Integrated 12 kHz – 20 MHz
Environmental							
	Mechanical Shock	MIL-STD-202, Method 213, C (100 g's)					
	Vibration	MIL-STD-202, Method 201 & 204 (10 g's from 10-2000 Hz)					
	Thermal Cycle	MIL-STD-883, Method 1010, B (-55°C to +125°C, 15 min dwell, 10 cycles)					
	Hermeticity	MIL-STD-202, Method 112					
	Solderability	Per EIAJ-STD-002					
	Max Soldering Conditions	See solder profile, Figure 1					

1. Inclusive of initial tolerance, deviation over temperature, shock, vibration, voltage and aging.
2. PECL load - see Load Circuit Diagram #5. LVDS load – see load circuit diagram #9.

MtronPTI Lead Free Solder Profile