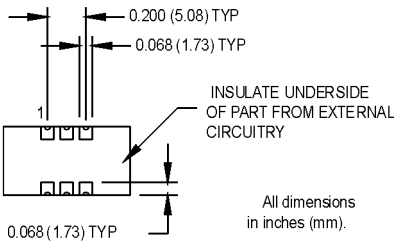
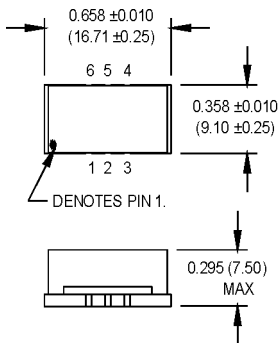


M5001 Series

9x16 mm FR-4, 3.3 Volt, CMOS/TTL/PECL/LVDS, HPXO

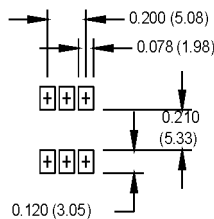


- Ideal for applications requiring long term (20 year) all-inclusive stability



All dimensions in inches (mm).

SUGGESTED SOLDER PAD LAYOUT



Pin Connections

PIN	FUNCTION
1	N/C
2	Tristate
3	Ground
4	Output 1
5	Output 2
6	+Vcc/Vdd

Ordering Information

Parameter	Value
Product Series	M5001
Temperature Range	2
Stability	8
Output Type	R
Symmetry/Logic Compatibility	C
Package/Lead Configurations	K
RoHS Compliance	-R
Frequency (customer specified)	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
Stability
 6: ±25 ppm 8: ±20 ppm
 D: ±15 ppm E: ±10 ppm
Output Type
 R: Complementary tristate (PECL/LVDS)
 T: Tristate (CMOS)
Symmetry/Logic Compatibility
 D: 45/55% CMOS/TTL L: 45/55% LVDS
 P: 45/55% PECL
Package/Lead Configurations
 K: FR-4, 6 Pad
RoHS Compliance
 Blank: non-RoHS compliant part
 -R: RoHS compliant part

PARAMETER	Symbol	Min.	Typ.	Max.	Units	Condition/Notes
Frequency Range	F	19.44		160	MHz	CMOS/TTL PECL/LVDS
Operating Temperature	T _A	(See Ordering Information)				
Storage Temperature	T _s	-55		+105	°C	
Frequency Stability	ΔF/F	(See Ordering Information)				
Aging						
1st Year				1.5	ppm	
Thereafter (per year)				0.5	ppm	
Input Voltage	V _{cc/Vdd}	3.15	3.3	3.45	V	
Input Current	I _{cc/Idd}	5		50	mA	CMOS/TTL
		50		120	mA	PECL
		5		75	mA	LVDS
Output Type						CMOS/TTL/PECL/LVDS
Load		2 TTL or 15 pF Max. 50 Ohms to V _{cc} -2 Volts 100 Ohm differential load				CMOS/TTL PECL LVDS
Symmetry (Duty Cycle)		(See Ordering Information)				
Output Skew				50	ps	PECL
Differential Voltage		250	375	500	mV	LVDS
Logic "1" Level	V _{oh}	2.5			V	CMOS/TTL
		2.2		2.4	V	PECL
		1.375			V	LVDS
Logic "0" Level	V _{ol}			0.5	V	CMOS/TTL
		1.4		1.7	V	PECL
				1.125	V	LVDS
Rise/Fall Time	T _{r/Tf}	2.0		10	ns	CMOS/TTL
		0.25		3.0	ns	PECL/LVDS
Tristate Function		Input Logic "1": output active Input Logic "0": output disables				Opposite tristate logic Available upon request
Start up Time		10			ms	
Phase Noise (Typical)						Offset from carrier
@ 19.44 MHz	-60	-90	-120	-135	-148	dBc/Hz
@ 155.52 MHz	-60	-90	-110	-120	-120	dBc/Hz
@ 622.08 MHz	-60	-90	-100	-105	-105	dBc/Hz

1. Stability includes initial tolerance, deviation over temperature, supply and load variation, and aging for 20 years @ 25°C.

MtronPTI reserves the right to make changes to the product(s) and service(s) described herein without notice. No liability is assumed as a result of their use or application.

Please see www.mtronpti.com for our complete offering and detailed datasheets. Contact us for your application specific requirements: MtronPTI 1-800-762-8800.