

# M6007 Series

## 9x14 mm FR-4, 3.3 Volt, HCMOS/TTL, TCVCXO

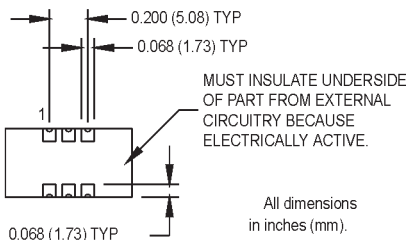
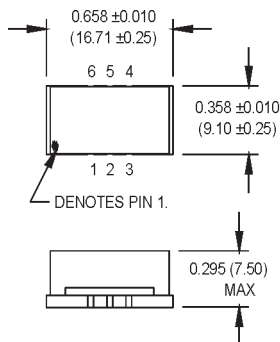


### Ordering Information

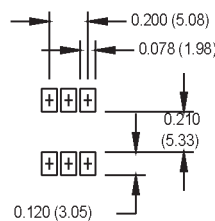
	M6007	1	L	V	A	D	00.0000
Product Series							
Temperature Range	1: 0°C to +70°C 2: -40°C to +85°C 6: -20°C to +70°C 8: 0°C to +50°C						
Stability	L: ±5 ppm						
Frequency Control (Pin #1)	V: ±10 ppm						
Symmetry/Logic Compatibility	A: 40/60 CMOS/TTL B: 45/55 TTL C: 45/55 CMOS						
Package/Lead Configurations	D: DIP; Nickel Header K: FR-4, 6 Pad						
Frequency (customer specified)	00.0000 MHz						

M6007Sxxx - Contact factory for datasheet.

- Stratum 3 compliant stability and aging
- Ideal for WLL/DWDM/ATM, and SONET/SDH applications



### SUGGESTED SOLDER PAD LAYOUT



### Pin Connections

FUNCTION	SMT
N/C	1
Tristate	2
Ground/Case	3
Output	4
N/C	5
+Vdd	6

PARAMETER	Symbol	Min.	Typ.	Max.	Units	Condition/Notes	
Frequency Range	F	60		170	MHz		
Operating Temperature	T <sub>A</sub>	(See Ordering Information)					
Storage Temperature	T <sub>S</sub>	-55		+105	°C		
Frequency Stability	ΔF/F	(See Ordering Information)					See Note 1
Aging							
1st Year				1.5	ppm		
Thereafter (per year)				0.5	ppm		
Pullability/APR		(See Ordering Information)					
Control Voltage	V <sub>c</sub>	0.5	1.5	2.5			
Tuning Range				10	ppm/V		
Modulation Bandwidth	f <sub>m</sub>	10			kHz		
Input Impedance	Z <sub>in</sub>	50k			Ohms		
Input Voltage	V <sub>dd</sub>	3.15	3.3	3.45	V		
Input Current	I <sub>dd</sub>			25	mA		
Output Type						CMOS/TTL	
Load		2 TTL or 15 pF max.					
Symmetry (Duty Cycle)		(See Ordering Information)					
Logic "1" Level	V <sub>oh</sub>	2.5			V		
Logic "0" Level	V <sub>ol</sub>			0.5	V		
Rise/Fall Time	T <sub>r</sub> /T <sub>f</sub>			10	ns		
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)	10 Hz	100 Hz	1 kHz	10 kHz	100 kHz	Offset from carrier	
@155.52 MHz	-60	-90	-110	-120	-120	dBc/Hz	
Environmental	Shock	MIL-STD-202, Method 213, C				100 g's	
	Vibration	MIL-STD-202, Method 204 – 204				10 g's from 10-2000 Hz	
	Thermal Cycle	MIL-STD-883, Method 1010, B				-55°C to +125°C, 15 minute dwell, 10 cycles	
	Hermeticity	MIL-STD-202, Method 112				Must meet 1 x 10 <sup>-8</sup>	
	Max Soldering Conditions	See solder profile, Figure 1					

1. Stability is inclusive of five year aging at 25°C.

TTL Load – See load circuit diagram #1. HCMOS Load – See load circuit diagram #2.

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# MtronPTI Lead Free Solder Profile



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