### **EXTREME ENVIRONMENT**

THRU-HOLE HIGH-TEMPERATURE CRYSTAL OSCILLATORS

# FMOCHTO5 SERIES

**Extreme Temperature Crystal Oscillators** 

T0-5 & T0-5 Low Profile



- 16 kHz to 80 MHz
- +1.8 Volts and Above
- High-Shock & Vibration
- -100°C to +230°C
- Extended Operating Life

### **SPECIFICATIONS**

Parameter	Specification			
Frequency Range	16.00 kHz to 80.00 MHz			
Operating Temperature Range	-100°C to +230°C, Customer Specified			
Overall Frequency Tolerance vs. Temperature	<i>typical</i> : ±100ppm, ±150ppm, ±175ppm, and ±250ppm <i>example</i> : ±200ppm; -40°C to +200°C			
Customer Specified & Temperature Range Dependent-	example: ±250ppm; -40°C to +230°C			
(please inquire, call the factory)	example: ±60ppm; 0°C to +200°C			
Storage Temperature	-100°C to +240°C			
Supply Voltage	+1.8V, 2.5V, 3.3V, 5V (all ± 10%)			
	Inquire about higher or lower voltage options.			
Supply Current	See table below (inquire on extreme low-power)			
Rise and Fall Time (voltage, load & freq. dependent)	1~10 nsec			
Start-up Time	10 ms max. < 5 ms typical			
Output	CMOS, (SOI Option, please inquire)			
Output Enable Options	Enabled on Logic "1" (available for			
	temperatures up to +230°C)			
Screening / Testing Available	per MIL-PRF-55310 or Custom			

Established and Guaranteed Long-Term Operating Life at the Extreme High-Temperature

FMI continuously performs life test on high temperature products. Inquire about the life test relevant to your specific application.

SUPPLY CURRENT (mA)								
	Frequency							
Voltage	16 kHz	*32.768 kHz	5 MHz		16 MHz		24 MHz	
voitage	std	std	std	low power	std	low power	std	low power
+2.5V	0.125	0.25	0.8	0.25	2.5	0.6	4.5	0.8
+3.3V	0.23	0.45	1.2	0.45	4.0	0.8	6.0	1.1
+5.0V	0.6	1.1	2.6	0.75	8.0	1.4	11.0	1.9

\*Real Time Clock Stability: ±60ppm 0 to +200°C (0.8mA @ +2.5V) Available

#### PACKAGE OPTIONS

- 3 Lead Package
- Custom Pin Outs

real-time-clocks, now available with than specified herein, Please Inquire

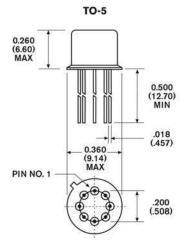
#### **PIN FUNCTION TABLE**

Pad	Function			
1	NC or Tri-state			
4	Ground (Case)			
5	Output			
8	Vcc			

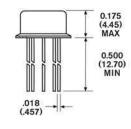
Note: Do not connect to pins 2, 3, 6, & 7

## RoHS compliant

### Package Outline Drawing



#### **TO-5 LOW PROFILE**



Inches Dimensions: (mm)

All specifications subject to change without notice.

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PLEASE CONTACT US FOR PART NUMBERS, HOW TO ORDER, ADDITIONAL PRODUCT SPECIFICATIONS & OR YOUR CUSTOM REQUIREMENTS