

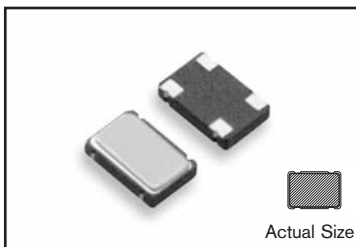
# EXTREME ENVIRONMENT

## SMD HIGH-TEMPERATURE CRYSTAL OSCILLATORS

### FMOCHT5S<sup>SERIES</sup>

Extreme Temperature  
Crystal Oscillators

CERAMIC SMD 5x7



- 16 kHz to 100 MHz
- +1.2 Volts and Above
- High-Shock & Vibration
- -100°C to +300°C
- Extended Operating Life

### SPECIFICATIONS

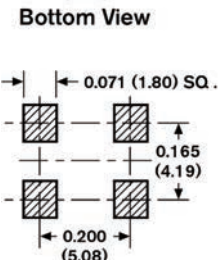
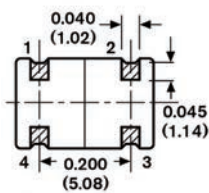
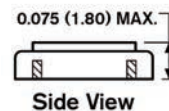
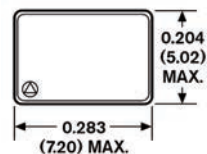
Issue 14 | 09212020

\_/1 Contact the Factory for Temperature Requirements above +235°C

Parameter	Specification
Frequency Range	16.00 kHz to 100.00 MHz
Operating Temperature Range	From -100°C to +300°C, Customer Specified _/1
Overall Frequency Tolerance vs. Temperature	<i>typical:</i> ±100ppm, ±150ppm, ±175ppm, and ±250ppm <i>example:</i> ±200ppm; -40°C to +200°C <i>example:</i> ±250ppm; -40°C to +230°C <i>example:</i> ±60ppm; 0°C to +200°C
<i>Customer Specified &amp; Temperature Range Dependent (please inquire, call the factory)</i>	
Storage Temperature	<i>standard:</i> 100°C to +235°C (+300°C optional)
Supply Voltage	+1.2V, 1.8V, 2.5V, 3.3V, 5V (all ± 10%) Inquire about 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 for up to +300°C)
Output Enable Options	Enabled on Logic "1" (available for temperatures up to +230°C)
Screening / Testing Available	per MIL-PRF-55310



#### CERAMIC SMD



Recommended Land Pattern

Dimensions:  $\frac{\text{Inches}}{\text{mm}}$

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)

Voltage	Frequency				
	*32.768 kHz	5 MHz	16 MHz	24 MHz	40 MHz
+2.5V	<i>std</i> 0.01	<i>std**</i> 0.25	<i>std**</i> 0.6	<i>std**</i> 0.8	<i>std**</i> 1.1
+3.3V	0.02	0.45	0.8	1.1	1.5
+5.0V	1.1	0.75	1.4	1.9	2.5

\*Real Time Clock Stability: ±60ppm 0 to +200°C (0.2mA @ +2.5V) Available

*Ultra-low-power, real-time-clocks, now available with even lower current than specified herein. Please Inquire*

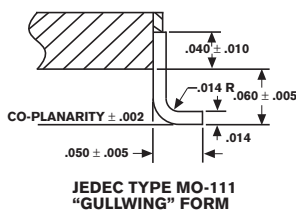
\*\*Contact the factory for lower power requirements.

#### PIN FUNCTION TABLE

Pad	Function
1	NC or Tri-state
2	Ground (Case)
3	Output
4	Supply Voltage (Vcc)

#### PACKAGE OPTIONS

- 4 Pad
- 6 Pad
- 4 Pad with Gullwing Leads  
*also available:* Straight Lead, J-Lead and Flat J-Lead; inquire



JEDEC TYPE MO-111  
"GULLWING" FORM

All specifications subject to change without notice.

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