

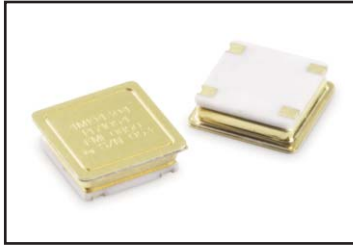
# EXTREME ENVIRONMENT

## SMD HIGH-TEMPERATURE PACKAGED QUARTZ CRYSTALS

### FMXTHC7S<sup>SERIES</sup>

Extreme Temperature  
Packaged Crystals

### CERAMIC SMD 7x7



- 3.6 MHz to 125 MHz
- 0°C to +200°C Standard
- High-Shock & Vibration
- Stability from  $\pm 70$ ppm
- Surface Mount Alternative to TO-5

### SPECIFICATIONS



Issue 4 | 12282011

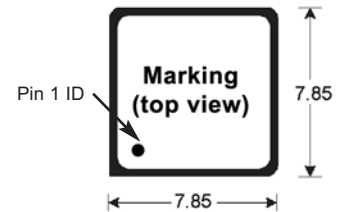
Parameter	Specification
Frequency Range	*3.60 MHz to 125.000 MHz
Operation Mode	See Operation Mode and ESR Table
Load Capacitance (CL)	18pf Std, 8 - 60pF and Series available
Frequency Tolerance	$\pm 50$ ppm @ 25°C, Custom Options available
Temperature Tolerance	$\pm 250$ ppm Std, $\pm 70$ ppm to $\pm 300$ ppm available
Operating Temperature	0 to 200°C Std, Custom Options available
Storage Temperature	-55°C to +240°C
Equivalent Series Resistance (ESR)	See Operation Mode and ESR Table
Shunt Capacitance (CO)	7pF max
Drive Level	50 $\mu$ W typical, 1mW max
Aging @ 25°C	$\pm 5$ ppm per year
Screening / Testing Available	per MIL-3098

All specifications subject to change without notice.

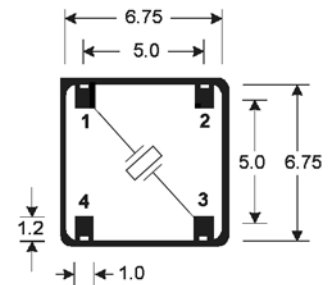
\*Note: For frequencies less than 3.9 MHz use Crystal Oscillator in 5x7mm or 7x7mm packages.

- High Pullability
- Swept Quartz Option
- AT, IT, or SC Cut Crystals
- -150°C to +240°C Available

#### CERAMIC SMD



Also available-  
optional package  
height of 2.18 mm;  
please inquire.



Dimensions: mm

#### Operation Mode and ESR Table

Freq (MHz)	Mode	MAX ESR
3.6 - 4.1	Fundamental	150
4.2 - 4.9	Fundamental	100
5.0 - 7.9	Fundamental	80
8.0 - 14.9	Fundamental	50
15.0 - 30.9	Fundamental	25
31.0 - 42.0	Fundamental	35
24.0 - 59.9	3rd Overtone	40
60.0 - 81.9	3rd Overtone	50
82.0 - 104.0	3rd Overtone	60
105.0 - 125.0	3rd Overtone	70

#### Pad Configuration

Pad	Function
1	Connect
2	No-Connect
3	Connect
4	No-Connect

*Extremely Linear  
Temperature Sensors  
for High-Temperature  
Applications Now  
Available.*

Material
Ceramic Base with Gold Pads
Gold Plated Kovar Walls & Lid

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

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