

**PART NUMBERING GUIDE**

**Environmental/Mechanical Specifications on page F5**

**FMX - 532 E G 20 C 1 - 29.4912MHz**

<p><b>Package</b> _____ 5X3.2X0.8mm max. ht. / Seam Weld (Metal Lid Package)</p> <p><b>Tolerance</b> _____ A=±10ppm B=±15ppm C=±20ppm D=±30ppm E=±50ppm</p> <p><b>Stability</b> _____ A=±5ppm / B=±10ppm C=±15ppm / D=±20ppm E=±30ppm / F=±50ppm</p>	<p><b>Mode of Operation</b> 1=Fundamental 3=Third Overtone</p> <p><b>Operating Temperature Range</b> Per Table 1</p> <p><b>Load Capacitance</b> S=Series, XX=XXpF (Pico Farads)</p>
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**ELECTRICAL SPECIFICATIONS** Revision: 2002-D

<b>Frequency Range</b>	10.000MHz to 48.000MHz
<b>Frequency Tolerance/Stability</b>	A, B, C, D, E, F See above for details. Other Combinations Available. Contact Factory for Custom Specifications.
<b>Operating Temperature Range</b>	A, B, C, D, E, F, G, H (See Table 1)
<b>Aging @ 25°C</b>	±2ppm / year Maximum
<b>Storage Temperature Range</b>	-55°C to 100°C
<b>Load Capacitance</b> "S" Option "XX" Option	Series 10pF to 50pF
<b>Shunt Capacitance</b>	5pF Maximum
<b>Insulation Resistance</b>	500 Megaohms Minimum at 100Vdc
<b>Drive Level</b>	100uW Maximum, 100uW correlation

**TABLE 1: PART NUMBERING CODES**

Operating Temperature	Frequency Stability (±ppm) * Denotes Availability of Options						
	±5 ppm	±10 ppm	±15 ppm	±20 ppm	±30 ppm	±50 ppm	
Range	Code	A	B	C	D	E	F
	-10 to 60°C	A	*	*	*	*	*
-20 to 70°C	B		*	*	*	*	*
0 to 70°C	C		*	*	*	*	*
-10 to 70°C	D		*	*	*	*	*
-20 to 70°C	E		*	*	*	*	*
-30 to 60°C	F				*	*	*
-20 to 80°C	G				*	*	*
-40 to 85°C	H				*	*	*

**EQUIVALENT SERIES RESISTANCE (ESR)**

Frequency Range (MHz)	ESR (ohms)	Mode / Cut
12.000 to 19.990MHz	50	Fundamental / AT
20.000 to 29.999MHz	50	Fundamental / AT
30.000 to 48.000MHz	50	Fundamental / AT

**MECHANICAL DIMENSIONS**

All Dimensions in mm.

**Pad Connection**  
1 Crystal In  
2 Ground  
3 Crystal Out  
4 Ground

**Marking Guide**

16.000M  
CEIYM

16.000M= Frequency  
CEI = Caliber Electronics Inc.  
YM = Date Code (Yr./Mth)

**Recommended Solder Pattern**