

**MHZ SMD CRYSTALS**

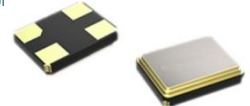
**MAIN FEATURE**

- Ultra-small SMD Package, Seam Sealed Ceramic-Metal, 4pads
- High precision & High frequency stability

**RFQ**

Request For Quotation

**NEW**



L1.2\*W1.0\*H0.33mm

**APPLICATION**

- Small Bluetooth & wireless device • IoT, Health care equipment

**STANDARD SPECIFICATION**

Parameter	Value			Unit	Condition
	Min.	Type	Max.		
Frequency Range	26.00		96.00	MHz	
Oscillation Mode	AT Fund.				
Frequency Tolerance	-	±50		ppm@25 °C	See p/n guide for more option
Operating Temp. Range	-40	-	+85	°C	See p/n guide for more option
Storage Temp. Range	-55	-	+125	°C	
Load Capacitance(CL)	-	18	-	pF	See p/n guide for more option
Frequency Stability	-	±50	-	ppm	See p/n guide for more option
Equivalent Series Resistance (ESR)			150	ohm	@26.000 ~ 32.0MHz
			80		@32.001~40.00MHz
			60		@40.001~96.00MHz
Drive Level	-	-	100	μW	
Shunt Capacitance	-	-	7.0	pF	
Insulation Resistance	500	-		mW	DC/100V +/-10%
Aging per year	-	±3		ppm	@25 °C

**PART NUMBER GUIDE**

Example: CM12 48M0A50-18-50-40-80 TLF

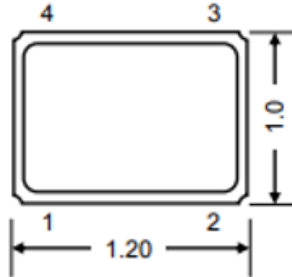
CM12	48M0	A	50	-18	-50	-40	-80	T	LF	XX
1	2	3	4	5	6	7	8	9	10	11

- 1) CM12: Part Series Code for MHz SMD Crystal, 4 pads, L1.2\*W1.0\*H0.33mm
- 2) 48M0: Frequency Range 48.000MHz or specify detail frequency range
- 3) A: Oscillation Mode, A: AT Fund.
- 4) 50: Freq. tolerance, 50: +/-50ppm; 10: +/-10ppm; 20: +/-20ppm; 30: +/-30ppm or Specify
- 5) 18: Load Capacitance(CL), 15: 15pF; 18: 18pF; 20: 20pF; 30: 30pF or Specify detail CL value
- 6) 50: Frequency Stability, 50: +/-50ppm; 10: +/-10ppm; 20: +/-20ppm; 30: +/-30ppm or Specify detail value
- 7) 40: Operating Temp. Range, 40: -40°C ~+85°C; 10: -10°C ~+60°C; 20: -20°C ~+70°C; or Specify detail value
- 8) 80: Equivalent Series Resistance (ESR), 80: 80 ohm Max.
- 9) T: Package in Tape/Reel, 5000pcs/Reel
- 10) LF: RoHS Compliant
- 11) XX: Internal Control Code- 2 letter or digits ; Blank: N/A

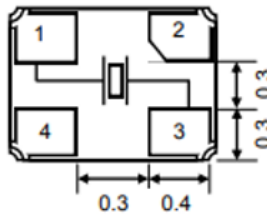
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**DIMENSION (mm)**

**Top View**



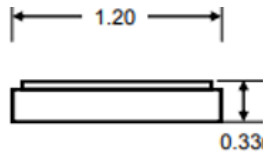
**Bottom View**



**Connection**

- #1 Crystal
- #2 Ground
- #3 Crystal
- #4 Ground

**Side View**



**Solder Pattern**

