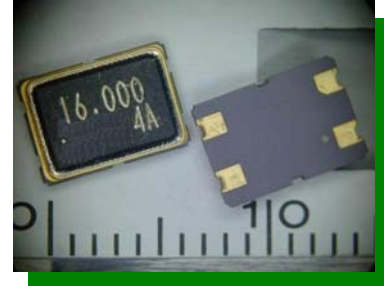


## Microprocessor Crystal Unit 7.0 x 5.0mm Surface Mount Package



### Features

- Seam Seal
- Excellent Solderability
- High Frequency Stability
- Excellent Thermal Hysteresis
- Excellent Vibration Resistance & Shock Resistance
- RoHS Compliant



### Electrical Specifications

Frequency Range		6.000 to 133.000	
Mode of Oscillation	Fundamental	6.000 to 48.000	MHz
	Third Overtone	40.000 to 133.000	
Frequency Tolerance at 25°C	Standard	±30	PPM Max
	Optional	± 25 to ±10	
Frequency Stability over Temperature Range	Standard	±50	°C
	Optional	±30 to ±10	
Operating Temperature Range	Standard	-10 to +70	°C
	Extended	-40 to +85	
Storage Temperature Range		-55 to +125	
Aging		±3	PPM Max/Year
Load Capacitance		10 to 32 or Series Resonance	pF
Shunt Capacitance		7.0	pF
Equivalent Ser Resistance (ESR)		See ESR Table	Ohms
Drive Level		100	uW Typ
Insulation Resistance		500 at 100Vdc (±15Vdc)	M Ohm

### Frequency Range vs. ESR Values

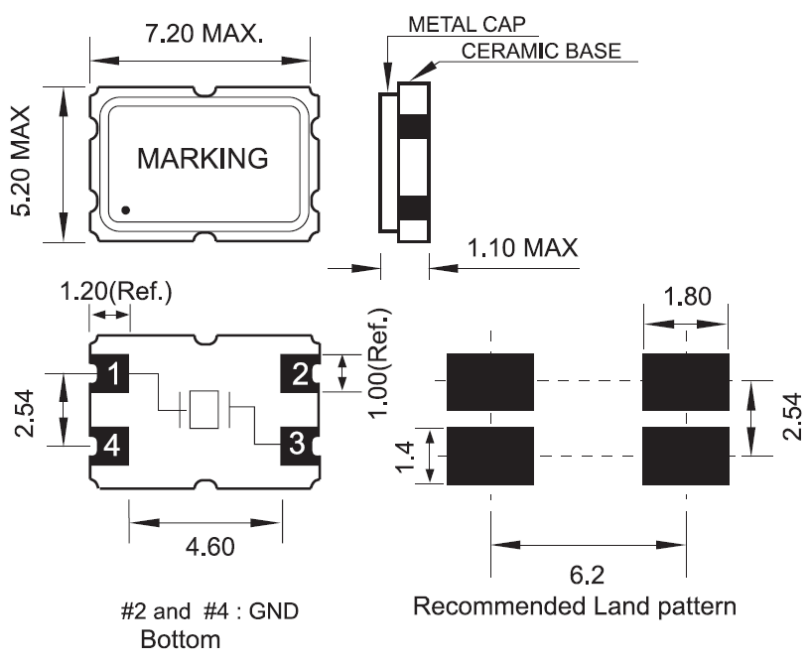
Frequency Range in MHz	ESR Ohms Max	Mode of Operation
6.000 to 10.000	110	Fundamental
10.100 to 12.000	60	Fundamental
12.100 to 20.000	45	Fundamental
20.100 to 48.000	30	Fundamental
40.000 to 52.000	80	Third Overtone
52.100 to 133.000	60	Third Overtone

### Part Numbering System

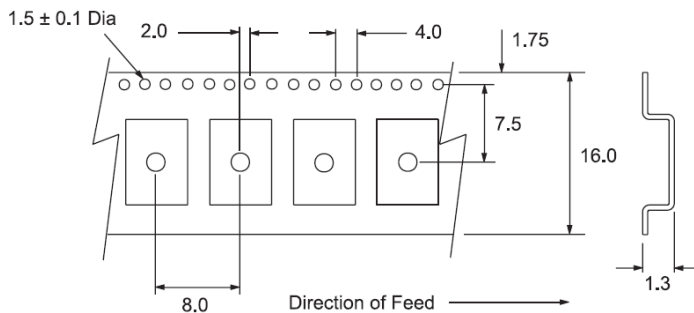
Type	Frequency	Load Capacitance	Mode (*1)	Tolerance/ Stability (*1)	Extended Temperature (*1)	Tape & Reel
WSC70	in MHz	10 to 32 for Parallel or S for Series	3OT – Third Overtone	(PPM/PPM) e.g. 1020, 1010	EXT	TR

Examples : WSC70-12.000-18-TR, WSC70-48.000-18-3OT-TR or WSC70-52.000-S-1010-EXT-TR

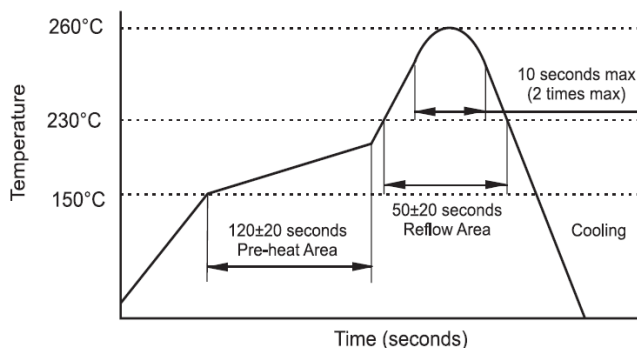
### Mechanical Outline



### Carrier Tape Dimensions



### Solder Reflow Characteristics



#### Notes:

- 1 - Fundamental Mode, Standard Tolerance/Stability and Standard Temperature Range, do not need to be included in Part Number description.
- 2 - Product is shipped in Tape and Reel configuration. Each reel contains 1000 pieces.
- 3 - Specification subject to change without notice.