WSC50B

Wavetron

Microprocessor Crystal Unit
5.0 x 3.2mm Surface Mount Package

Pb RoHS Compliant

Features
- Seam Seal
- Excellent Solderability
- High Frequency Stability
- RoHS Compliant

Electrical Specifications

Frequency Range		8.000 to 125.000	MHz
Mode of Oscillation	Fundamental	8.000 to 50.000	
	Third Overtone	40.000 to 125.000	
Frequency Tolerance at 25°C	Standard	±30	PPM Max
	Optional	± 20 to ±10	
Frequency Stability over Temperature Range	Standard	±50	
	Optional	±30 to ±10	
Operating Temperature Range	Standard	-20 to +70	°C
	Extended	-40 to +85	
Storage Temperature Range		-55 to +125	
Aging		±3	PPM Max/Year
Load Capacitance		8 to 32 and Series Resonance	pF
Shunt Capacitance		5.0	pF Max
Equivalent Ser Resistance (ESR)		See ESR Table	Ohms
Drive Level		100	uW Max
Insulation Resistance		500 at 100Vdc (±15Vdc)	M Ohm

Frequency Range vs. ESR Values

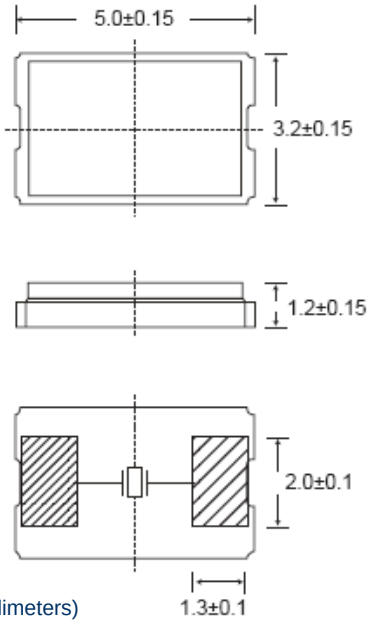
Frequency Range in MHz	ESR Ohms Max	Mode of Operation	Frequency Range in MHz	ESR Ohms Max	Mode of Operation
8.000 to 10.000	100	Fundamental	30.100 to 52.000	40	Fundamental
10.100 to 12.000	90	Fundamental	40.000 to 52.000	80	Third Overtone
12.100 to 15.000	70	Fundamental	52.100 to 80.000	80	Third Overtone
15.100 to 30.000	50	Fundamental	80.100 to 125.000	60	Third Overtone

Part Numbering System

Type	-	Frequency	-	Load Capacitance	-	Mode (*1)	-	Tolerance/ Stability (*1)	-	Extended Temperature (*1)	-	Tape & Reel
WSC50B		in MHz		8 to 32 for Parallel or S for Series		3OT – Third Overtone		(PPM/PPM) e.g. 2020, 1010		EXT		TR

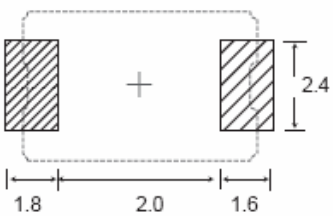
Examples : WSC50B-12.000-18-TR, WSC50B-48.000-18-3OT-TR or WSC50B-52.000-S-1010-EXT-TR

Mechanical Outline

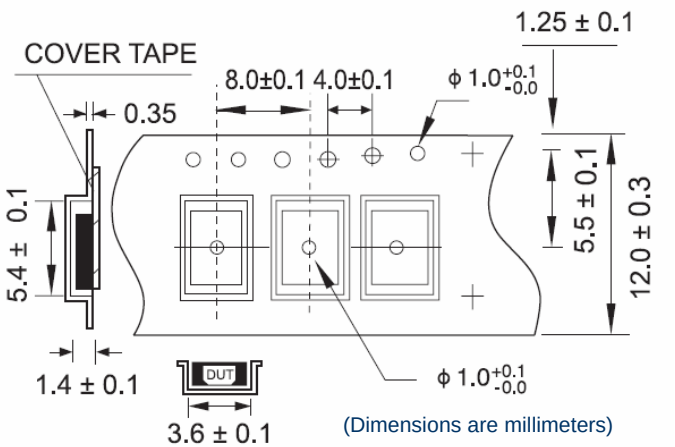


(Dimensions are millimeters)

PCB Solder Pad Layout

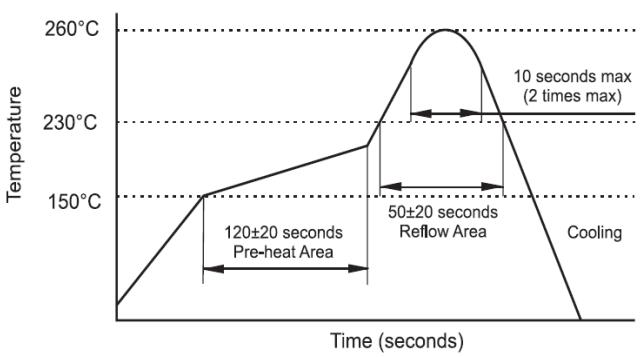


Carrier Tape Dimensions



(Dimensions are millimeters)

Solder Reflow Characterisitc



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.