

RoHS Compliant  
Pb - Lead Free

Ltr	Revisions	Date	Appr

**Electrical Specifications:**

<b>Frequency Range</b>		<b>1.000 to 155.520</b>				<b>MHz</b>		
<b>Temperature Stability</b>		<b>±100</b>				<b>PPM Max</b>		
		<b>±50</b>						
		<b>±30</b>						
		<b>±20</b>						
<b>Aging per Year</b>		<b>±5</b>						
<b>Operating Temperature Range</b>		<b>Standard</b>		<b>-10 to +70</b>		<b>°C</b>		
		<b>Extended</b>		<b>-40 to +85</b>				
<b>Storage Temperature Range</b>		<b>-55 to +125</b>						
<b>Supply Voltage</b>		<b>1.8 ± 5%</b>	<b>2.5 ± 5%</b>	<b>2.8 ± 5%</b>	<b>3.3 ± 10%</b>	<b>Vdd</b>		
<b>Input Current</b>		<b>1.000 to 32.000 MHz</b>	<b>7</b>	<b>10</b>	<b>12</b>	<b>15</b>		
		<b>32.100 to 50.000 MHz</b>	<b>15</b>	<b>12</b>	<b>20</b>	<b>20</b>		
		<b>50.100 to 67.000 MHz</b>	<b>-</b>	<b>-</b>	<b>40</b>	<b>25</b>	<b>mA Max</b>	
		<b>67.100 to 80.000 MHz</b>	<b>-</b>	<b>-</b>	<b>40</b>	<b>25</b>		
		<b>80.100 to 155.520 MHz</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>40</b>		
<b>Output Voltage</b>		<b>Logic High (Voh)</b>		<b>90% (80% at 1.8)</b>		<b>Vdd Min</b>		
		<b>Logic Low (Vol)</b>		<b>10% (20% at 1.8)</b>		<b>Vdd Max</b>		
<b>Output Symmetry (Duty Cycle)</b>		<b>Standard</b>		<b>40 to 60</b>		<b>%</b>		
		<b>Tight</b>		<b>45 to 55</b>				
<b>Output Current</b>		<b>Lol/Loh</b>		<b>2</b>	<b>4</b>	<b>4</b>	<b>2</b>	<b>mA Min</b>
<b>Output Load</b>		<b>15</b>				<b>pF Max</b>		
<b>Rise and Fall Time</b>		<b>1.000 to 32.000 MHz</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>7</b>	<b>ns Max</b>	
		<b>32.100 to 50.000 MHz</b>	<b>3.5</b>	<b>5</b>	<b>5</b>	<b>7</b>		
		<b>50.100 to 67.000 MHz</b>	<b>-</b>	<b>-</b>	<b>5</b>	<b>7</b>		
		<b>67.100 to 80.000 MHz</b>	<b>-</b>	<b>-</b>	<b>5</b>	<b>7</b>		
		<b>80.100 to 155.520 MHz</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>7</b>		
<b>Standby Current</b>		<b>10</b>				<b>uA Max</b>		
<b>Enable-Disable Function</b>		<b>Tri-State</b>				<b>-</b>		
<b>Output Disable Time</b>		<b>300</b>	<b>150</b>			<b>ns Max</b>		
<b>Output Enable Time</b>		<b>10</b>	<b>10</b>			<b>ms Max</b>		
<b>Start Up Time</b>		<b>10</b>				<b>ms Max</b>		

Temperature stability is Inclusive of all conditions:  
Calibration Tolerance at +25°C, frequency stability over the operating temperature range, supply voltage, supply voltage change, output load changes, shock, vibration, and 1st year aging at +25°C.



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All dimensions are millimeters.

CAD: TCR

Review: EG

Appr: JL

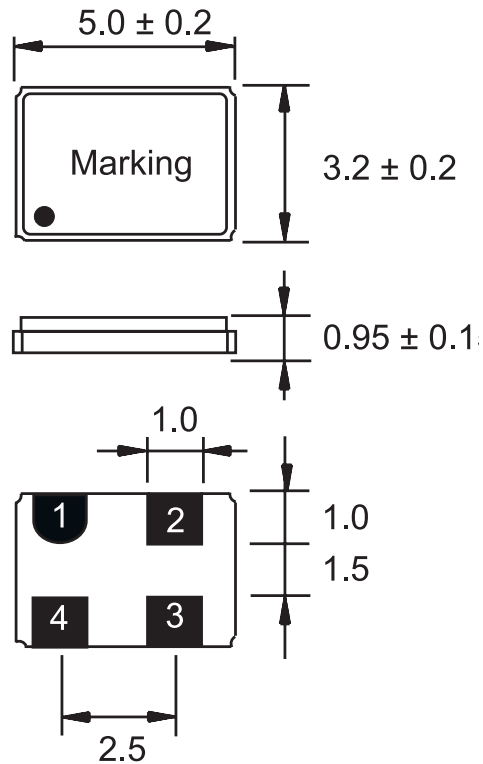
Page: 1/4 Date: April 30, 2006

Specification Title:

**Clock Oscillator  
Low Profile  
3.2 x 5.0 millimeter Surface Mount  
General Product Specification**

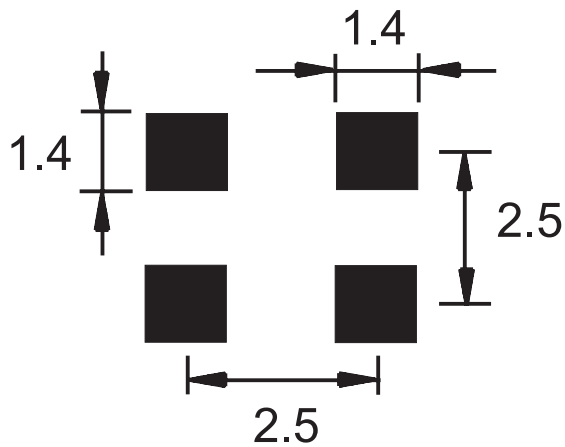
Part Number: **S5 Series**

**Mechanical Outline:**

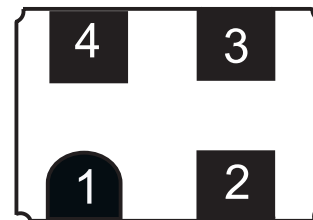


**Package is Seam Sealed Ceramic-Metal.  
Dimensions are millimeters.**

**PCB Solder Pad Layout:**



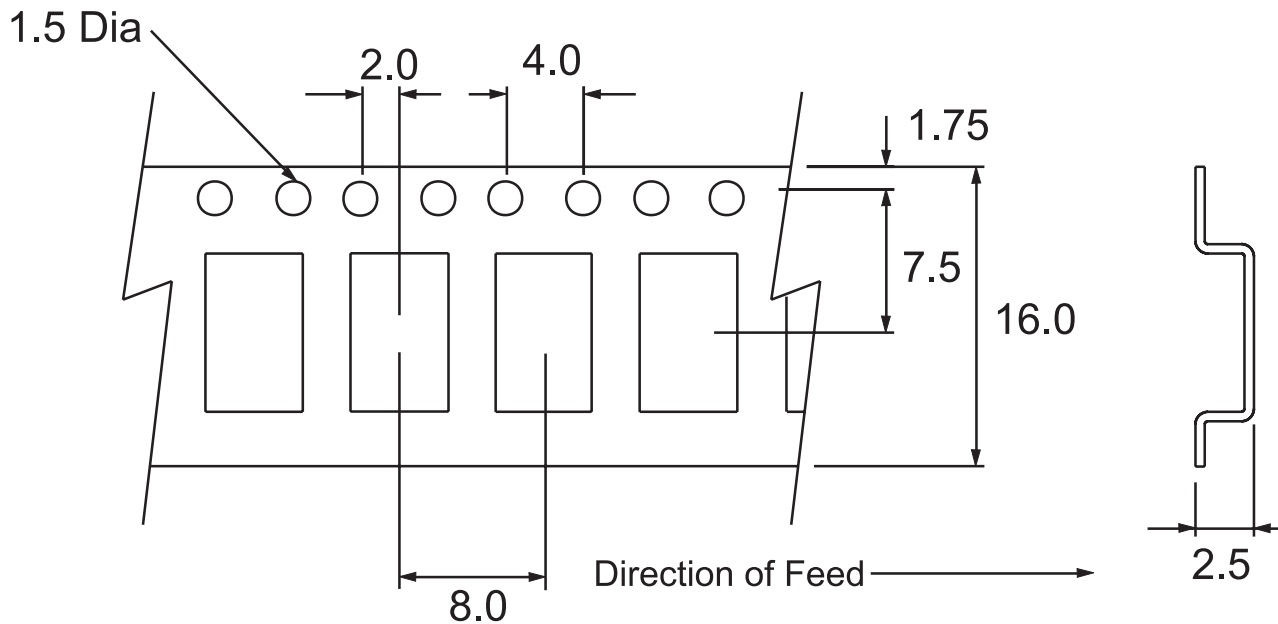
**Pad Connection:**



- 1: E/D
- 2: Gnd
- 3: Output
- 4: Vin

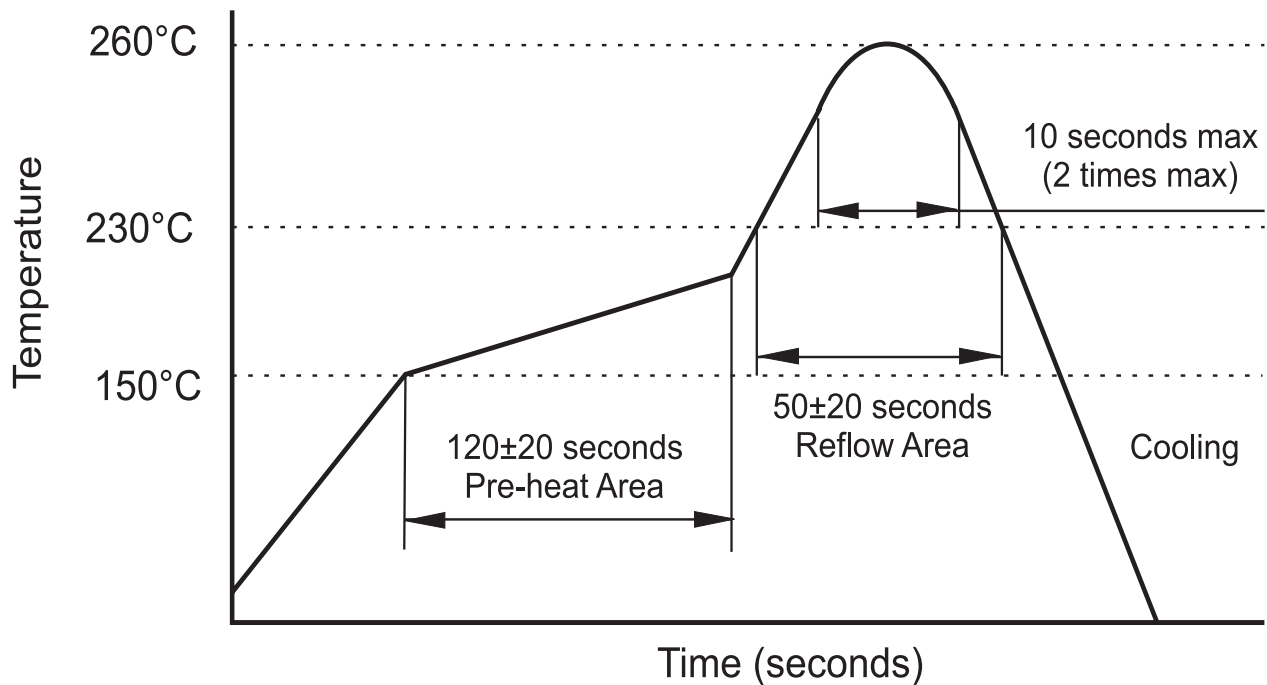
**Top View**

**Carrier Tape Dimensions:**



**Dimensions are millimeters.**

**Solder Reflow Characteristics:**



## How to build a Part Number:

Series	S	Parameter
Package	5	3.2 x 5.0 mm
Supply Voltage	33	+3.3 Vdd ± 5%
	28	+2.8 Vdd ± 5%
	25	+2.5 Vdd ± 5%
	18	+1.8 Vdd ± 5%
Temperature Stability	10	±100 PPM
	05	±50 PPM
	03	±30 PPM
	02	±20 PPM
Duty Cycle	See Notes	±10%
	T	±5%
-		
Frequency	1.000 to 155.520	MHz
-		
Temperature Range	See Notes	-10 to +70 °C
	X	-40 to +85 °C
-		
Packaging	R	Tape and Reel

### Part Number Example:

**S53310-155.520-X-R**

**S5: 3.2 x 5.0 mm SMD Package**

**33: +3.3 Vdd Supply Voltage**

**10: ±100 PPM Temperature Stability**

**155.520 MHz Nominal Frequency**

**X: -40 to + 85° C Extended Temperature Range**

**R: Tape and Reel Packaging**

### Notes:

- 1- Standard Duty Cycle and 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- Quantities less than 1000 are shipped bulk in ESD pouches.
- 4- Specification subject to change without notice.