

**RoHS Compliant  
Pb - Lead Free**

Ltr	Revisions	Date	Appr

**Electrical Specifications:**

Frequency Range	1.000 to 77.760 (Fundamental)			MHz
Frequency Stability over Temperature	±50			PPM Max
	±25			
	±20			
Aging per Year	±3			
Operating Temperature Range	Standard	0 to 70		°C
	Extended	-40 to +85		
Storage Temperature Range	-55 to 125			
Supply Voltage		3.3 ± 5%	5.0 ± 5%	Vdd
Input Current	1.000 to 20.000 MHz	10.0	10.0	mA Max
	20.100 to 40.000 MHz	15.0	20.0	
	40.100 to 77.760 MHz	25.0	30.0	
Frequency Deviation over Control Voltage	2.5 ± 2.0 Vdc	±80, ±100, and ±150		PPM Min
	1.65 ± 1.65 Vdc			
Output Voltage	Voh	90%		Vdd Min
	Vol	10%		Vdd Max
Output Symmetry	Standard	40 to 60		%
	Tight	45 to 55		
Output Load	10 TTL or 15			pF
Linearity - Positive Slope	10			%
Rise and Fall Time	1.000 to 20.000 MHz	10		ns Max
	20.100 to 40.000 MHz	8		
	40.100 to 77.760 MHz	5		
Start-up Time	10			ms Max
Jitter	Peak to Peak	10		ps Max
	One Sigma	1		
Pin 2 Tri-State Input Voltage		No Connect	Output Enable	-
Pin 5 Tri-State Input Voltage	Vih	0.7	Output Enable	Vdd Min
	Voh	0.3	Disable - High Z	Vdd Max



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All dimensions are millimeters.

CAD: TCR

Review: EG

Appr: JL

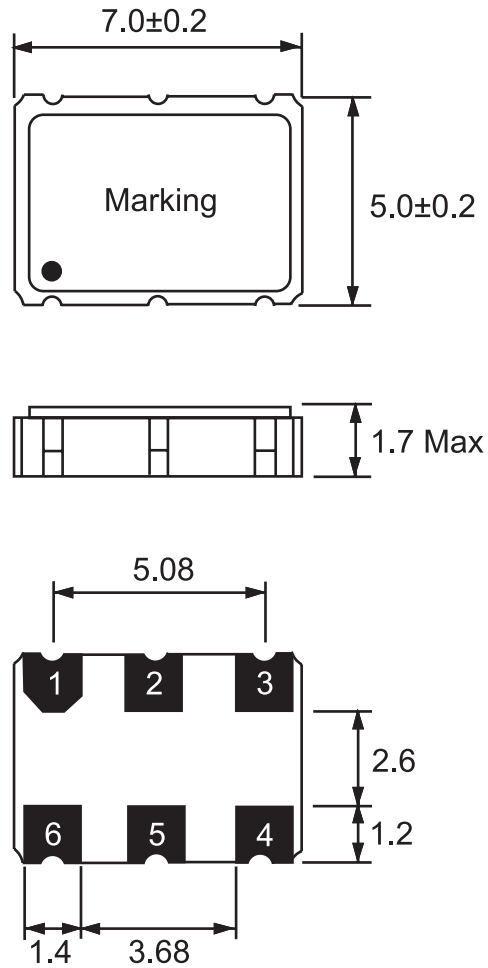
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Specification Title:

**Voltage Controlled Clock Oscillator  
Low Profile  
5.0 x 7.0 millimeter Surface Mount  
General Product Specification**

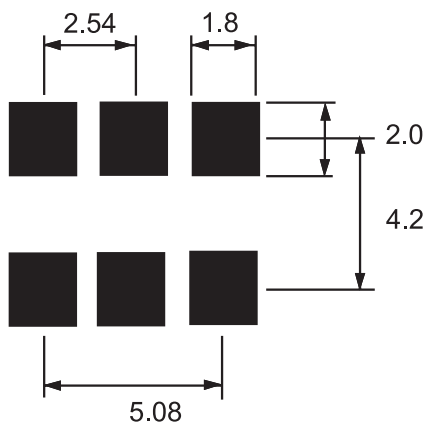
Part Number: **V7F Series**

**Mechanical Outline:**

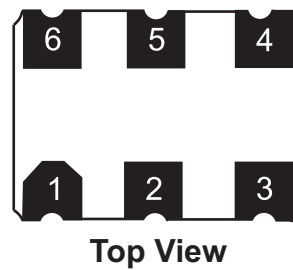


**Package is Seam Sealed Ceramic-Metal.  
Dimensions are millimeters.**

**PCB Solder Pad Layout:**



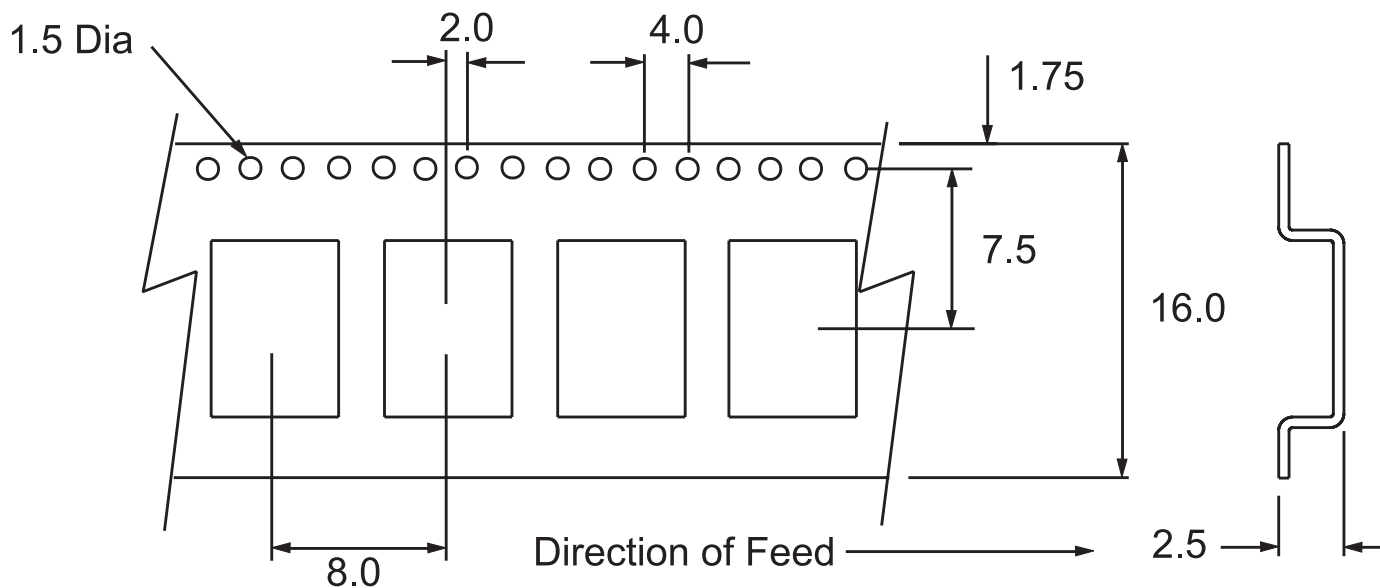
**Pad Connection:**



- 1- Vcont
- 2- Tri-State
- 3- Ground
- 4- Output
- 5- NC
- 6- Vdd

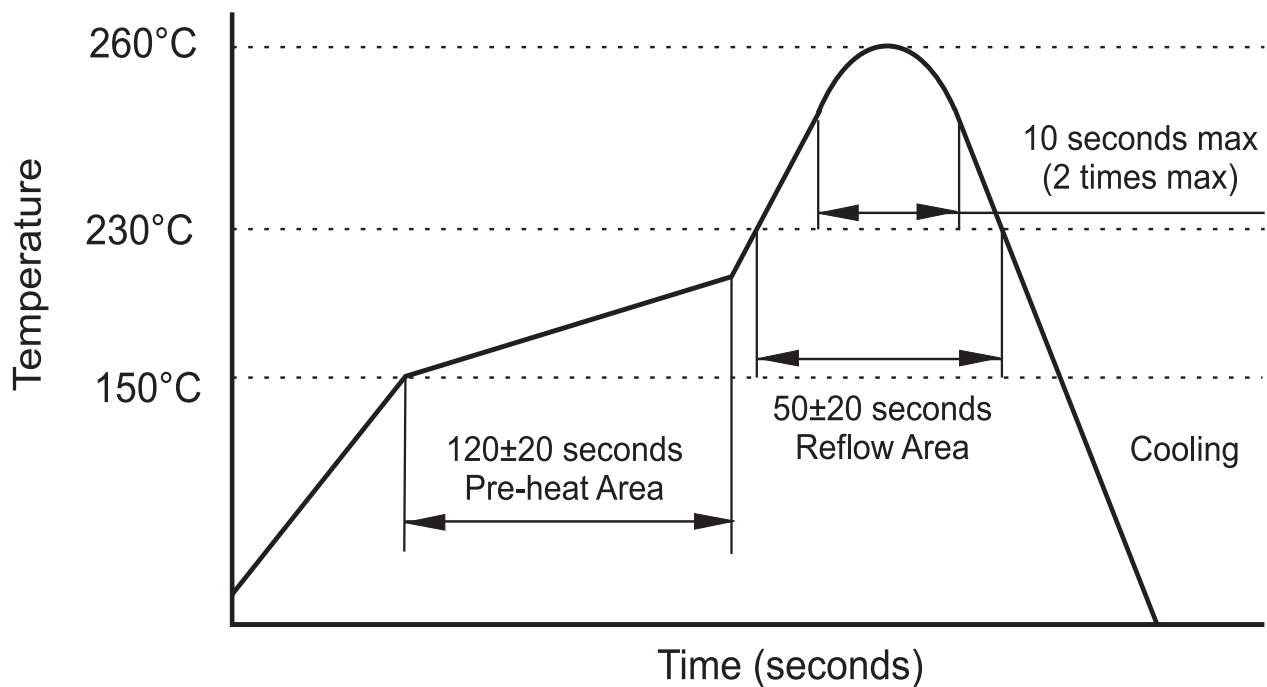
**Top View**

**Carrier Tape Dimensions:**



**Dimensions are millimeters.**

**Solder Reflow Characteristics:**



## How to build a Part Number:

Series	V	Parameter
Package	7F	5.0 x 7.0 (Fundamental)
	-	
Supply Voltage	5	+5.0 Vdc $\pm$ 5%
	33	+3.3 Vdc $\pm$ 10%
Frequency Stability	05	$\pm$ 50 PPM Max
	025	$\pm$ 25 PPM Max
	020	$\pm$ 20 PPM Max
Temperature Range	See Notes	0 to +70 °C
	D3	-40 to +85 °C
Pulling Range	150	$\pm$ 150 PPM Min
	100	$\pm$ 100 PPM Min
	80	$\pm$ 80 PPM Min
Output Symmetry	See Notes	40 to 60%
	T	45 to 55%
	-	
Output Load	H	HCMOS-TTL Compatible
	-	
Frequency	1.000 to 77.760	MHz
	-	
Packaging	-	Bulk
	R	Tape and Reel

### Part Number Example:

**V7F-3305D3100T-H-77.760-R**  
**V7F:** 5.0 x 7.0 mm SMD Package (Fundamental)  
**33:** +3.3 Vdd Supply Voltage  
**05:**  $\pm$ 50 PPM Temperature Stability  
**D3:** -40 to + 85° C Extended Temperature Range  
**100:**  $\pm$ 100 PPM Pulling Range  
**T:** 45/55 Tight Symmetry  
**H:** HCMOS Output  
**77.760** MHz Nominal Frequency  
**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.