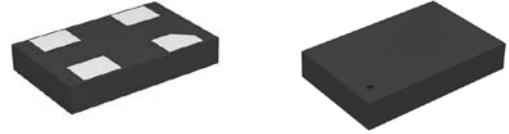




#### Features

- Frequency Range: 4 to 133 MHz
- Output Type: CMOS
- Frequency Tolerance:  $\pm 100$  ppm
- Supply Voltage: 1.8 to 3.3 V
- Power Consumption: 1.9 mA (1.8 V)
- Standby Current:  $< 1$   $\mu$ A
- Standard Package: 5.0 x 3.2 mm
- Operating Temperature: 0 to 70 °C  
-20 to 70 °C



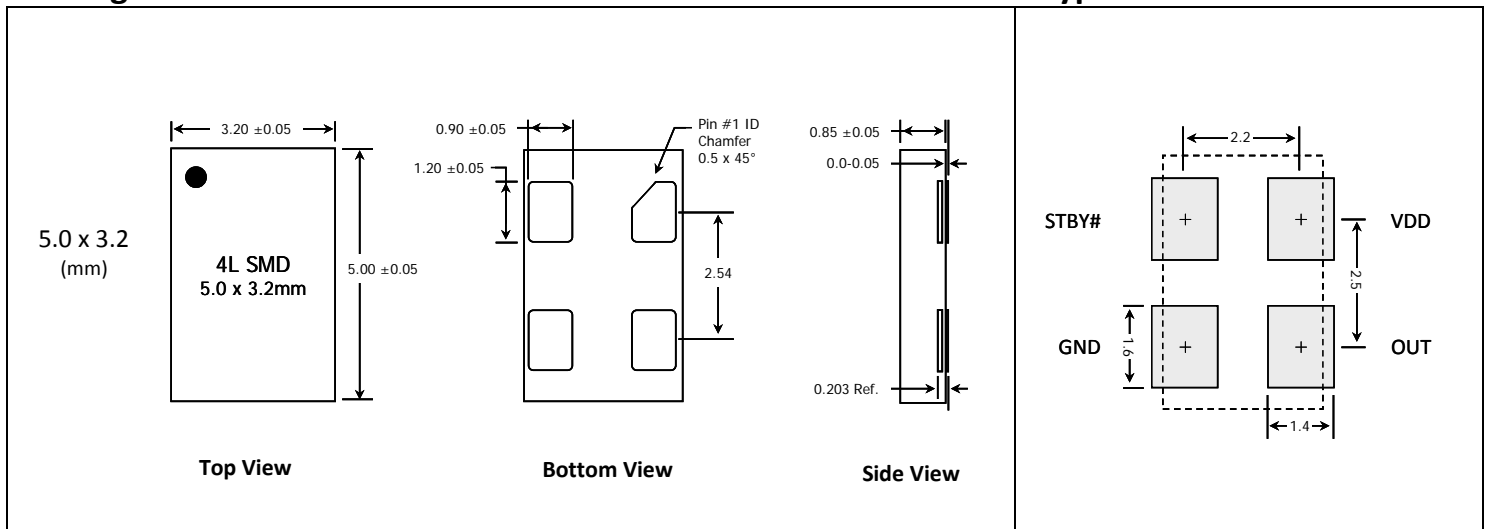
This product is rated "Green", please contact factory for environmental compliancy information

#### Specification

Parameter	Symbol	Specifications			Conditions
		1.8 V	2.5 V	3.3 V	
Supply Voltage	VDD	1.8 V	2.5 V	3.3 V	Nominal
Output Frequency	F <sub>OUT</sub>	4 to 133 MHz			See ordering code
Frequency Stability	F <sub>STB</sub>	$\pm 100$ ppm			Total Frequency Stability*
Supply Current	IDD	1.9 mA	2.0 mA	2.2 mA	Typical; No load condition; 25°C
Quiescent Current	I <sub>STBY</sub>	1 $\mu$ A			STBY# = GND
Input LOW level	V <sub>IL</sub>	0.3 VDD (max)			At STBY# pin
Input HIGH level	V <sub>IH</sub>	0.7 VDD (min)			
Output LOW level	V <sub>OL</sub>	0.1 VDD (max)			I <sub>OL</sub> = -1mA
Output HIGH level	V <sub>OH</sub>	0.9 VDD (min)			I <sub>OH</sub> = 1mA
Rise/Fall Time	T <sub>R</sub> /T <sub>F</sub>	2.75ns	2.3ns	1.9ns	20% to 80% x VDD. Output load (CL) = 4pF
Symmetry	SYM	45% / 55%			For frequencies < 100MHz;
		40% / 60%			For frequencies > 100MHz;
Start-up time	T <sub>ST</sub>	100 $\mu$ s			Output valid time after VDD meets the specified range & STBY# transition
Period Jitter	PJ <sub>RMS</sub>	17 ps	6 ps	5 ps	4pF load; 75MHz
Cycle to Cycle Jitter	CCJ <sub>MAX</sub>	120 ps	50 ps	40 ps	4pF load; 75MHz

\* Stability over temperature, supply variation, 3x reflow, load variation, aging (10 years)

#### Package Outline and Dimensions



## Absolute Maximum Ratings

Stresses beyond those listed under *Absolute Maximum Ratings* may cause permanent damage to the device. These ratings are stress specifications only. Functional operation of product at these or under any condition beyond those listed in the operating specifications is not implied. Exposure to absolute maximum rated conditions may affect product reliability.

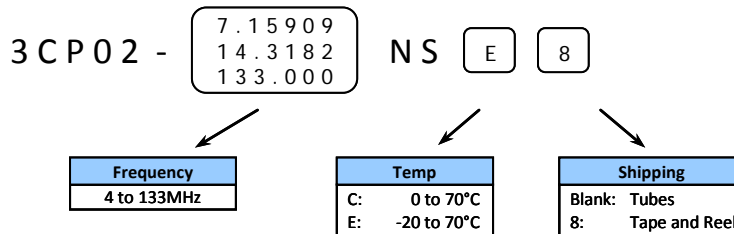
Item	Maximum Absolute Rating
VDD	4.6V
STBY#	-0.5V to VDD + 0.5V
OUT	-0.5V to VDD + 0.5V
Storage Temperature	-65°C to 150°C

## Pin Descriptions

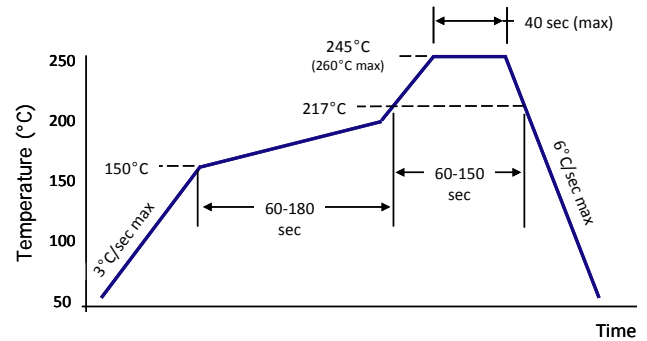
Pin #	Name	Description
1	STBY#	Standby Mode <sup>1</sup> (0 = Output Disabled)
2	GND	Ground
3	OUT <sup>2</sup>	CMOS Output
4	VDD	Power

1. Pulled high internally  
2. Weak pull down to GND during STBY# enable and startup

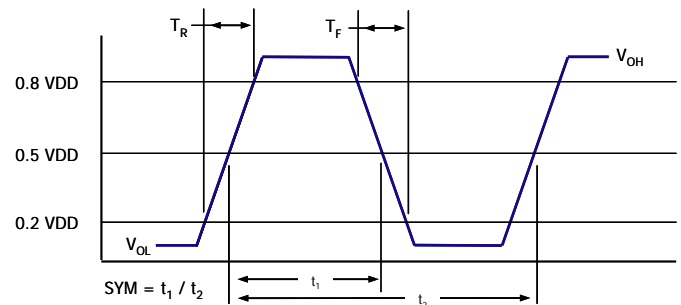
## Ordering Information



## Solder Reflow Profile



## Output Wave Form



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