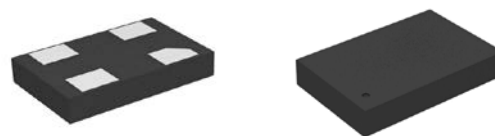


Features

- Frequency Range: 4 to 50 MHz
- Output Type: CMOS
- Initial Frequency Tolerance: ± 50 ppm
- Supply Voltage: 1.8 to 3.3 V
- Power Consumption: 1.9 mA (1.8 V)
- Standby Current: < 1 μ A
- Standard Package: 5.0 x 3.2 mm
2.5 x 2.0 mm
- Operating Temperature: 0 to 70 °C
-20 to 70 °C



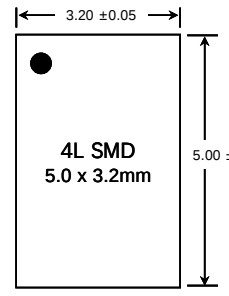
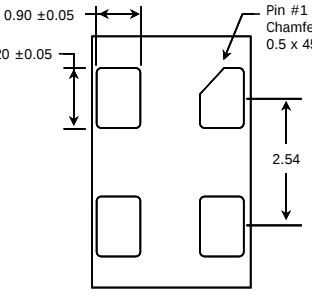
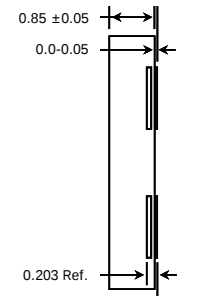
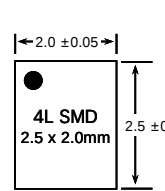
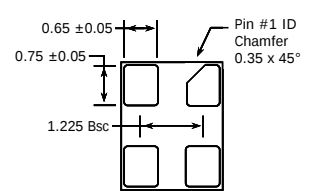
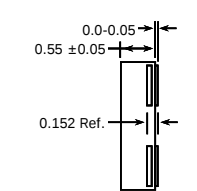
This product is rated "Green", please contact factory for environmental compliancy information

Specification

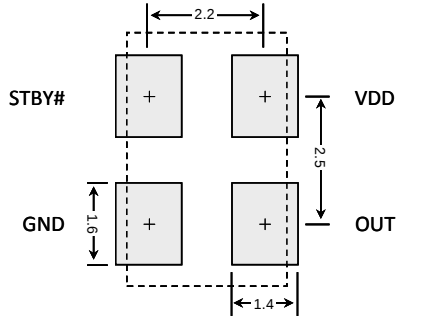
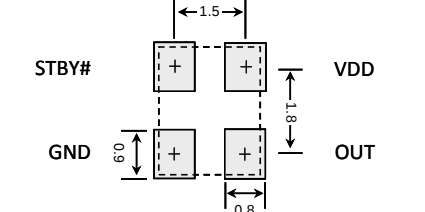
Parameter	Symbol	Specifications			Conditions
Supply Voltage	VDD	1.8 V	2.5 V	3.3 V	Nominal
Output Frequency	F _{OUT}	4 to 50 MHz			See ordering code
Initial Frequency Tolerance	F _{TOL}	± 50 ppm			25°C
Supply Current	IDD	1.9 mA	2.0 mA	2.2 mA	Typical; No load condition; 25°C
Quiescent Current	I _{STBY}	1 uA (max)			STBY# = GND
Input LOW level	V _{IL}	0.3 VDD (max)			At STBY# pin
Input HIGH level	V _{IH}	0.7 VDD (min)			
Output LOW level	V _{OL}	0.1 VDD (max)			I _{OL} = - 1 mA
Output HIGH level	V _{OH}	0.9 VDD (min)			I _{OH} = 1 mA
Tolerance over Temperature	F _{TEMP}	± 100 ppm			-20 to 70°C
Rise/Fall Time	T _R /T _F	2.75 ns	2.3 ns	1.9 ns	20% to 80% x VDD. Output load (CL) = 4 pF
Symmetry	SYM	45% / 55%			
Start-up time	T _{ST}	400 us			Output valid time after VDD meets the specified range & STBY# transition
Period Jitter	PJ _{RMS}	17 ps	6 ps	5 ps	4 pF load; 50 MHz
Cycle to Cycle Jitter	CCJ _{MAX}	120 ps	50 ps	40 ps	4 pF load; 50 MHz

*Aging @25°C is negligible over lifetime

Package Outline and Dimensions

5.0 x 3.2 (mm)  Top View	 Bottom View	 Side View
2.5 x 2.0 (mm)  Top View	 Bottom View	 Side View

Typical PCB Land Pattern

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

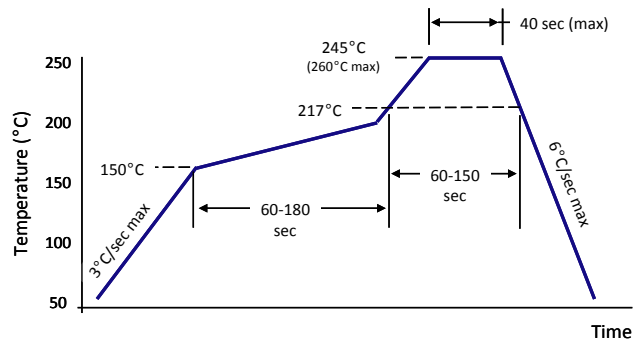
Pin Descriptions

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

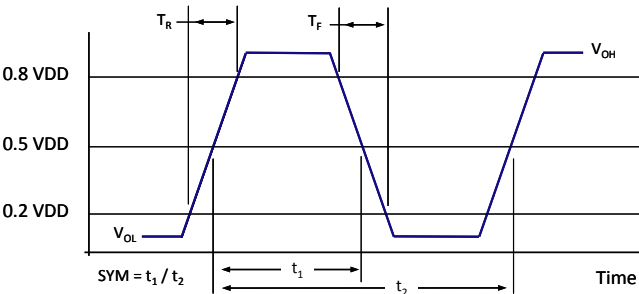
1. Pulled high internally

2. Weak pull down to GND during STBY# enable and startup

Solder Reflow Profile



Output Waveform



Ordering Information

8102 - 50 VPC NSG E T

Frequency

4 to 50MHz

Package

NSG: 5.0 x 3.2 (4 pin)
NVG: 2.5 x 2.0 (4 pin)

Temp

Blank: 0 to 70°C
E: -20 to 70°C

Shipping

Blank: Tubes
T: Tape and Reel