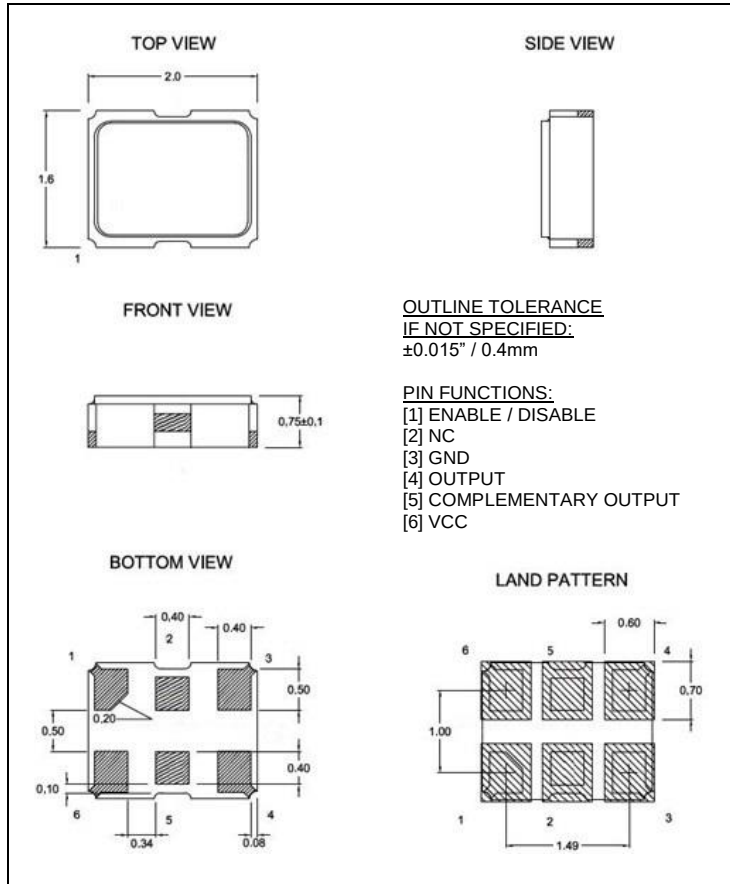


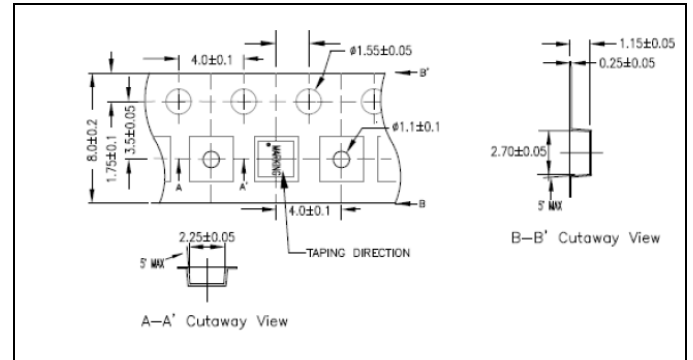
■ ELECTRICAL SPECIFICATION

PARAMETER	SYMBOL	CONDITIONS	VALUE		UNIT
Nominal Frequency	f _o	T _a =25°C	100.000		MHz
Oscillation Mode			Fundamental		-
Supply Voltage Range	V _{CC}	V _{CC} ±5%	2.5 ~ 3.3		VDC
Supply Current, typ/max			20/30		mA
Operating Temperature Range	T _a	---	-40 ~ +85		°C
Storage Temperature Range	T _(stg)	Absolute max	-55 ~ +125		°C
Output Logic Type	---		HCSL		
Freq. Stability, max	Δf/f _o	Inclusive of 25°C Tolerance and Changes due to Operating Temperature, Supply Voltage, Load, and Aging	±50		ppm
Output Voltage	V _{OL}	Logic "0" Level, min	-0.15		V
	V _{OH}	Logic "1" Level, max	0.9		V
Output Load	---	To GND and R _s =33Ω or 0Ω	50		Ω
Enable / Disable Function	E/D	Pin 1: High, Pins 4 & 5 – Oscillation (Enabled), min	0.7 x V _{CC}		V
		Pin 1: Low, Pins 4 & 5 – High Impedance (Disabled), max	0.3 x V _{CC}		V
Symmetry (Duty Cycle)	DC	@50% Wave Form	45 ~ 55		%
Stand by Current, max			10		μA
Differential Output Swing, min	V _{opp}		0.55		V
Rise Time and Fall Time, typ/max	t _r / t _f	@20% to 80% Wave Form	0.3/0.5		ns
Start up Time, max	t _{start}		2		ms
Jitter, RMS, typ	J	1σ, 12kHz < F _J < 20MHz	@2.5V	@3.3V	fs
			65.3	64.3	
Phase Noise, typ	E (Δf)	@10Hz	-79.26	-79.22	dBc/Hz
		@100Hz	-110.17	-109.61	
		@1kHz	-138.54	-138.39	
		@10kHz	-153.68	-152.78	
		@100kHz	-158.97	-157.30	
		@1MHz	-162.50	-161.81	
		@40MHz	-166.31	-166.42	

MECHANICAL SPECIFICATION



CARRIER TAPE DIMENSIONS

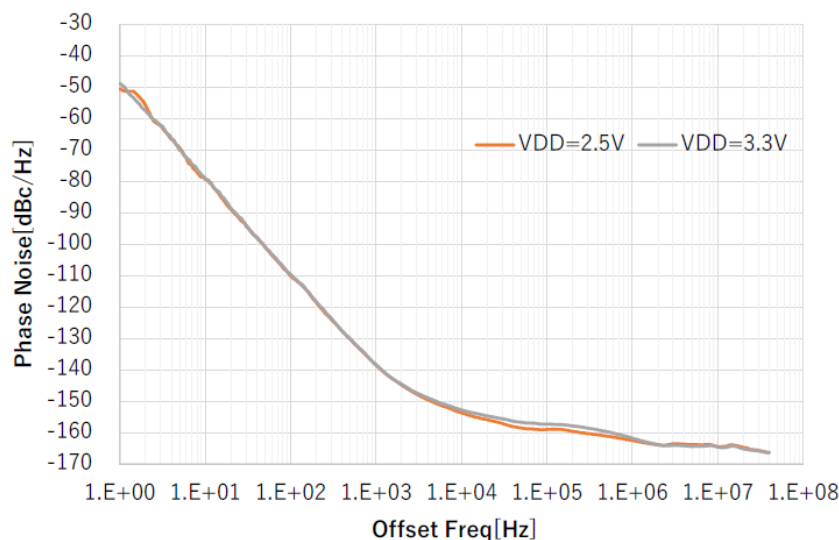


NOTE: REFER TO EIA-481 FOR DIMENSIONS NOT LISTED

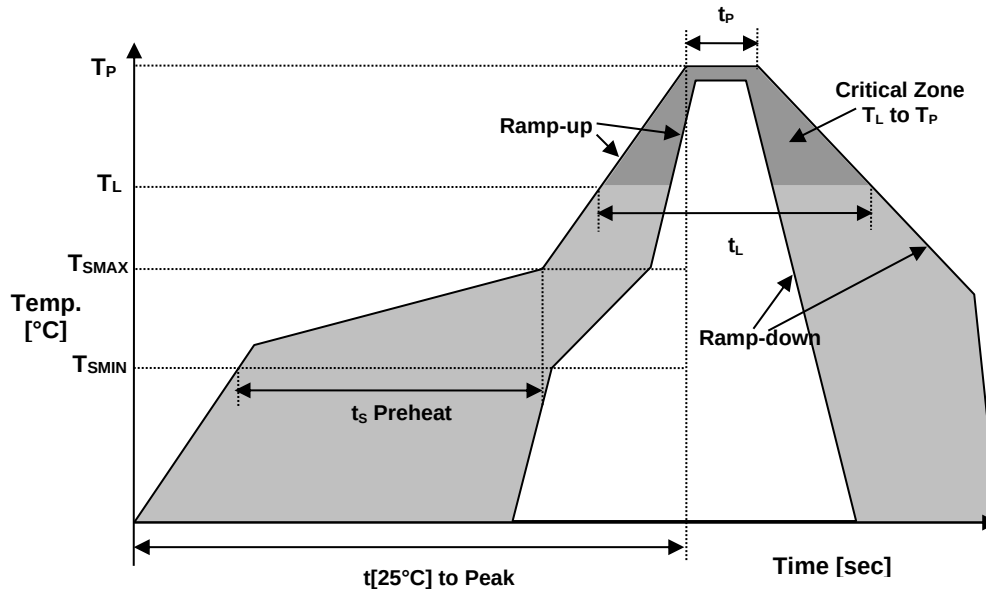
PACKAGING

180 mm REEL DIAMETER
 8 mm TAPE WIDTH, 4 mm PITCH
 QUANTITY: 3000 PIECES PER REEL

PHASE NOISE GRAPH



REFLOW PROFILE



Reflow profile		
Temperature Min Preheat	T_{SMIN}	150°C
Temperature Max Preheat	T_{SMAX}	200°C
Time (T_{SMIN} to T_{SMAX})	t_s	60-180 sec.
Temperature	T_L	217°C
Peak Temperature	T_P	260°C
Ramp-up rate	R_{UP}	3°C/sec max.
Ramp-down rate	R_{DOWN}	6°C/sec max.
Time within 5°C of Peak Temperature	t_p	10 sec.
Time $t[25^\circ\text{C}]$ to Peak Temperature	$t[25^\circ\text{C}]$ to Peak	480 sec.
Time	t_L	60-150 sec.

ENVIRONMENTAL

PARAMETER	VALUE
MOISTURE SENSITIVITY LEVEL	1
RoHS	Compliant
REACH-SVHC	Compliant
HALOGEN-FREE	Compliant
TERMINATION FINISH	Au



MARKING

Rxx100
•JBeyw

x – Internal Production ID code
y – Year code
w – Week code

YEAR CODE	
Year	Code
2019	9
2020	0
2021	1
2022	2
2023	3
2024	4
2025	5
2026	6
2027	7
2028	8
2029	9

ALPHA WEEK CODE TABLE					
Week	Code	Week	Code	Week	Code
1	a	19	s	37	K
2	b	20	t	38	L
3	c	21	u	39	M
4	d	22	v	40	N
5	e	23	w	41	O
6	f	24	x	42	P
7	g	25	y	43	Q
8	h	26	z	44	R
9	i	27	A	45	S
10	j	28	B	46	T
11	k	29	C	47	U
12	l	30	D	48	V
13	m	31	E	49	W
14	n	32	F	50	X
15	o	33	G	51	Y
16	p	34	H	52	Z
17	q	35	I		
18	r	36	J		
18	r	36	J		

APPROVAL

RALTRON	
DRAWN BY:	JS, March 14, 2025
APPROVED BY:	CP, March 14, 2025
REVISION:	A, Initial Release

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