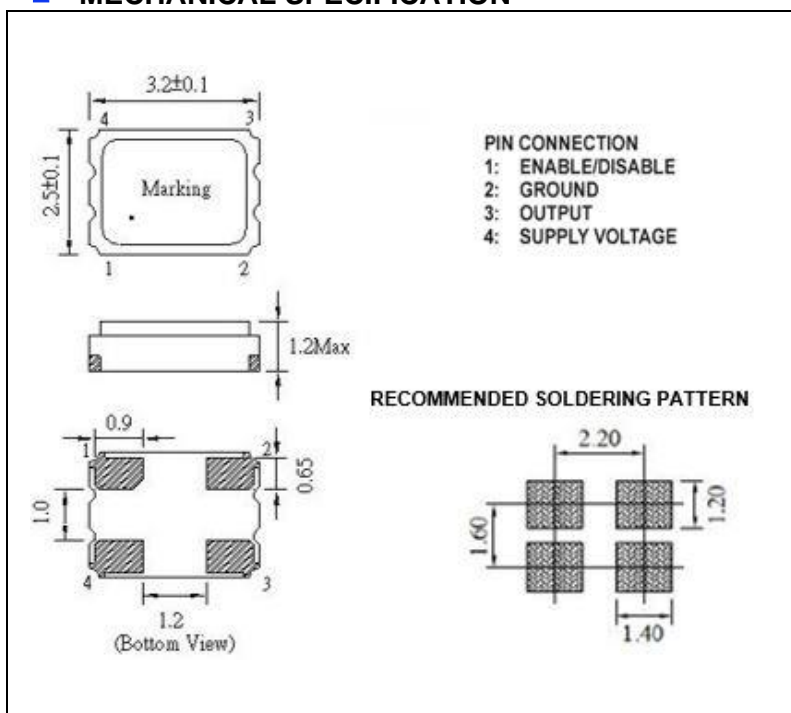


#### ELECTRICAL SPECIFICATION

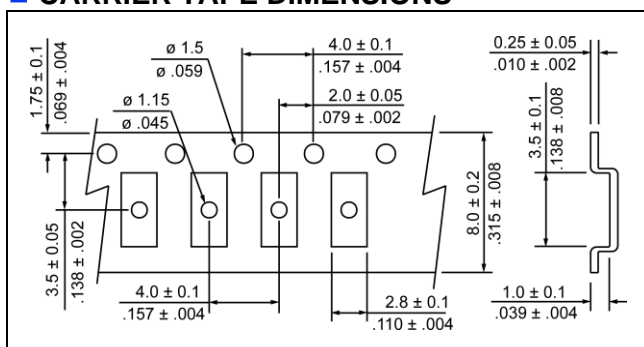
PARAMETER	SYMBOL	CONDITIONS	VALUE	UNIT
Nominal Frequency	$f_o$	$T_a=25^{\circ}\text{C}$	27.000	MHz
Supply Voltage	$V_{CC}$	$V_{CC}\pm 10\%$	3.3	VDC
Supply Current, max	$I_s$	$T_a=25^{\circ}\text{C}$	10	mA
Operating Temperature	$T_a$		-40 ~ +85	$^{\circ}\text{C}$
Storage Temperature	$T_{(stg)}$	Absolute max	-55 ~ +125	$^{\circ}\text{C}$
Frequency Stability, max	$\Delta f/f_o$	Inclusive of $25^{\circ}\text{C}$ Tolerance and Changes due to Operating Temperature, Supply Voltage & Load and First Year Aging	$\pm 25$	ppm
Output Voltage	$V_{OL}$	Logic "0" Level	$0.1 \times V_{CC} \text{ max}$	VDC
	$V_{OH}$	Logic "1" Level	$0.9 \times V_{CC} \text{ min}$	VDC
Output Load		CMOS Output	15	pF
Enable / Disable Function	E/D	Pin 1: N.C. (Open) or High, Pin 3 – Oscillation (Enabled), min	$0.7 \times V_{CC}$	V
		Pin 1: Low, Pin 3 – High Impedance (Disabled), max	$0.3 \times V_{CC}$	V
Symmetry (Duty Cycle)	DC	@50% Vdd	45 ~ 55	%
Rise Time and Fall Time, max	$t_r / t_f$	@10% to 90% Vdd	4	ns
Start-up Time, max	$t_s$	$V_{OUT} \geq 90\% V_{P-P}$	2	ms
Standby Current, max	$I_{(std)}$		10	$\mu\text{A}$
Phase Jitter, RMS, max	J	$1\sigma$ , $12\text{kHz} < F_j < 20\text{MHz}$	1	ps

#### MECHANICAL SPECIFICATION



NOTE: A capacitor of 0.01  $\mu\text{F}$  between Vcc and Ground is recommended

#### CARRIER TAPE DIMENSIONS

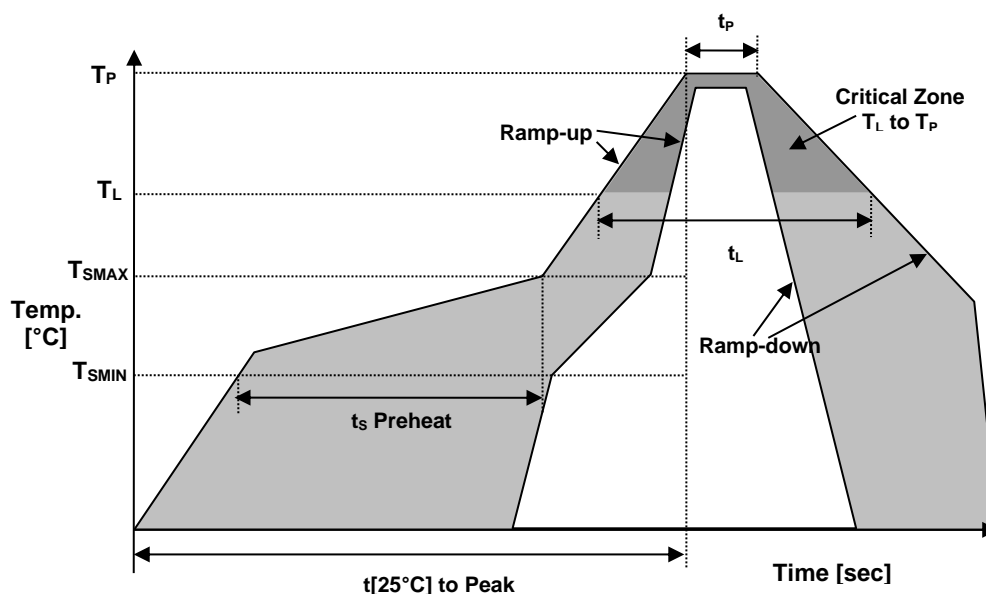


NOTE: REFER TO EIA-481 FOR DIMENSIONS NOT LISTED

#### PACKAGING

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

### REFLOW PROFILE



Reflow profile		
Temperature Min Preheat	T <sub>SMIN</sub>	150°C
Temperature Max Preheat	T <sub>SMAX</sub>	200°C
Time (T <sub>SMIN</sub> to T <sub>SMAX</sub> )	t <sub>s</sub>	60-180 sec.
Temperature	T <sub>L</sub>	217°C
Peak Temperature	T <sub>P</sub>	260°C
Ramp-up rate	R <sub>UP</sub>	3°C/sec max.
Ramp-down rate	R <sub>DOWN</sub>	6°C/sec max.
Time within 5°C of Peak Temperature	t <sub>P</sub>	10 sec.
Time t[25°C] to Peak Temperature	t[25°C] to Peak	480 sec.
Time	t <sub>L</sub>	60-150 sec.

### ENVIRONMENTAL

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



#### MARKING

Rx27.0

•3AEyw

x – 1 or 2 digits as Internal Production ID code

y – Year code

w – Week code

YEAR CODE	
Year	Code
2018	8
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		

#### APPROVAL

RALTRON	
DRAWN BY:	AR, January 28, 2019
APPROVED BY:	CP, January 28, 2019
REVISION:	A, Initial Release C, Updated supply current, rise/fall time, marking, added phase jitter and start-up time by XLiu, July 11, 2024

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