

● SPECIFICATIONS

PARAMETER	VALUE
NOMINAL FREQUENCY	48.000 MHz
MODE OF OSCILLATION	Fundamental
FREQUENCY TOLERANCE AT 25°C	±10 ppm max
FREQUENCY STABILITY OVER TEMPERATURE	±15 ppm max
OPERATING TEMPERATURE RANGE	-40°C to +85°C
STORAGE TEMPERATURE RANGE	-40°C to +85°C
AGING	±2 ppm per year max
LOAD CAPACITANCE	20 pF
EQUIVALENT SERIES RESISTANCE	50 Ω max
SHUNT CAPACITANCE	3.5 pF max
DRIVE LEVEL	200 μW max

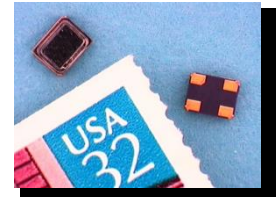
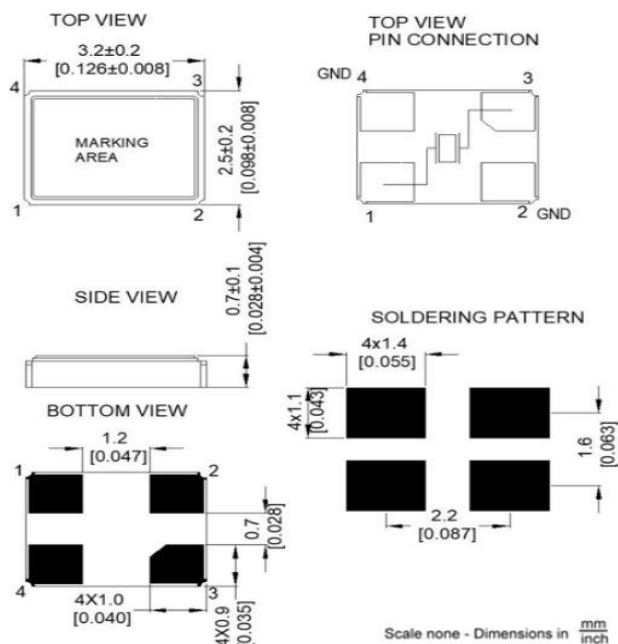


Photo is not actual part

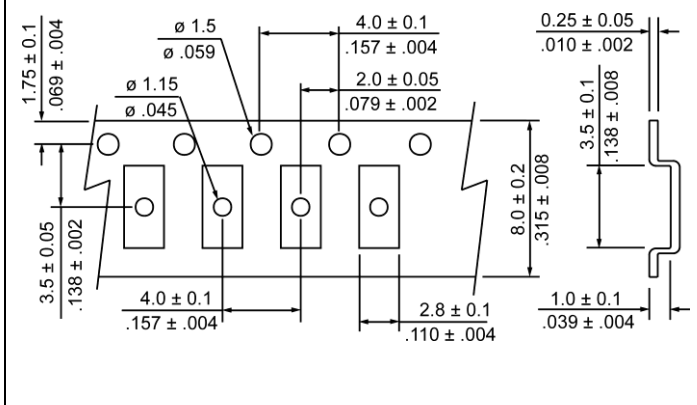
- **MECHANICAL SPECIFICATION**



Notes

- Pins 2 and 4 are connected together and to the metal cover for Case GND.
 - According to ceramic base availability the Chamfer location could be on a different pin.
- However, the Chamfer's location does not influence the electrical performance of the crystal.

- **CARRIER TAPE DIMENSIONS**



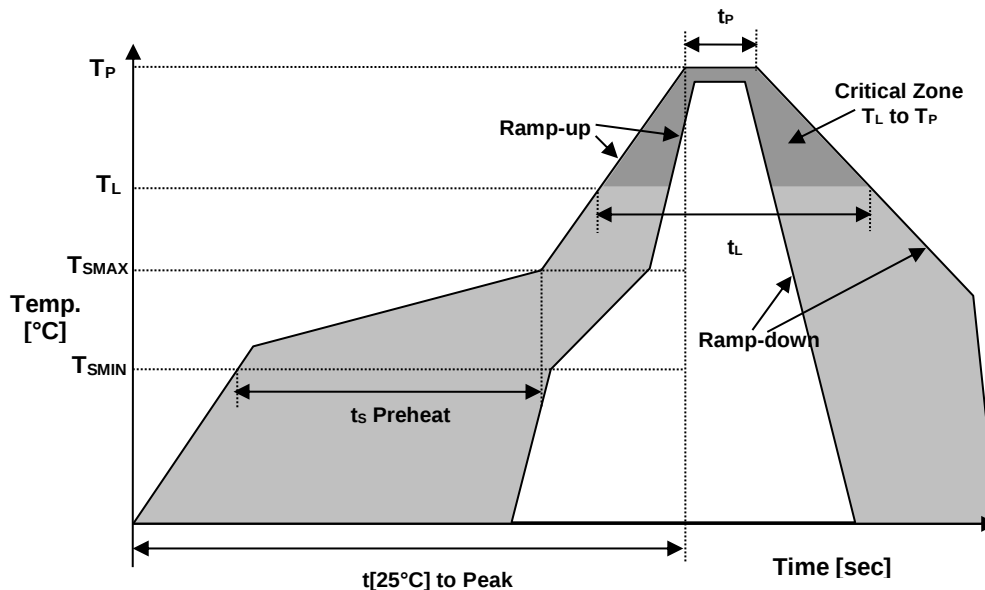
NOTE: REFER TO EIA-481 FOR DIMENSIONS

- **PACKAGING**

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

IN ACCORDANCE WITH EIA-481

REFLOW PROFILE



Reflow profile		
Temperature Min Preheat	T _{SMIN}	125°C
Temperature Max Preheat	T _{SMAX}	150°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°C] to Peak Temperature	t[25°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
ESD CLASSIFICATION LEVEL	N/A
TERMINATION FINISH	Au



● MARKING

R48.000

xxKEyw

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
2029	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

DRAWN BY	JH, January 31, 2019
APPROVED BY	CP, January 31, 2019
REVISION	A, Initial Release B, Updated to current spec levels by XS, February 18, 2021

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