



**THE DATASHEET OF  
R2520-24.000-10-1010-TR-NS4**



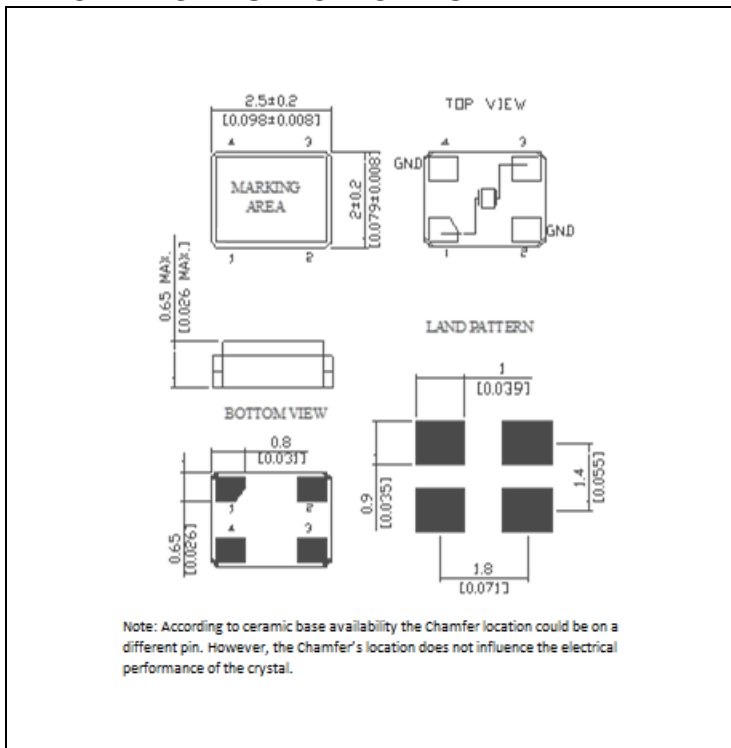
## SPECIFICATIONS

PARAMETER	VALUE
NOMINAL FREQUENCY	24.000 MHz
MODE OF OSCILLATION	Fundamental
FREQUENCY TOLERANCE AT 25°C	±10 ppm max
FREQUENCY STABILITY OVER TEMPERATURE	±10 ppm max
OPERATING TEMPERATURE RANGE	-10°C to +60°C
STORAGE TEMPERATURE RANGE	-40°C to +85°C
AGING	±2 ppm per year max
LOAD CAPACITANCE	10 pF
EQUIVALENT SERIES RESISTANCE	60 Ω max ↵
SHUNT CAPACITANCE	3.5 pF max
DRIVE LEVEL	200 μW max ↵
SHOCK RESISTANCE	±5 ppm max 75 cm drop test onto a hard wood surface
REFLOW CONDITIONS	260°C for 10 sec max

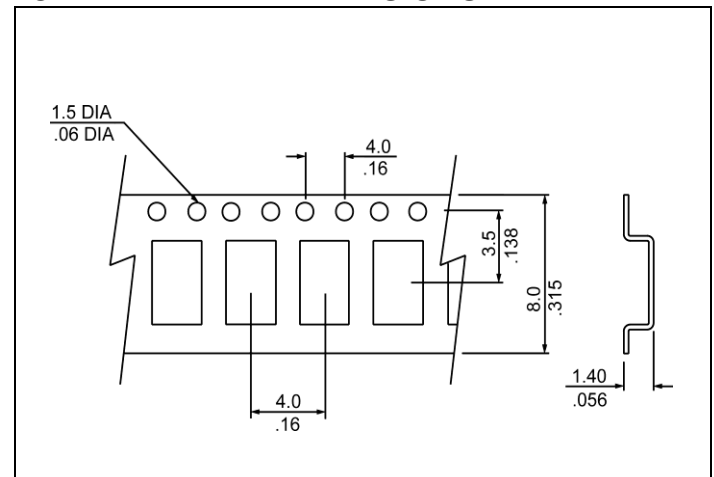


Photo is not actual part

## MECHANICAL SPECIFICATION



## CARRIER TAPE DIMENSIONS



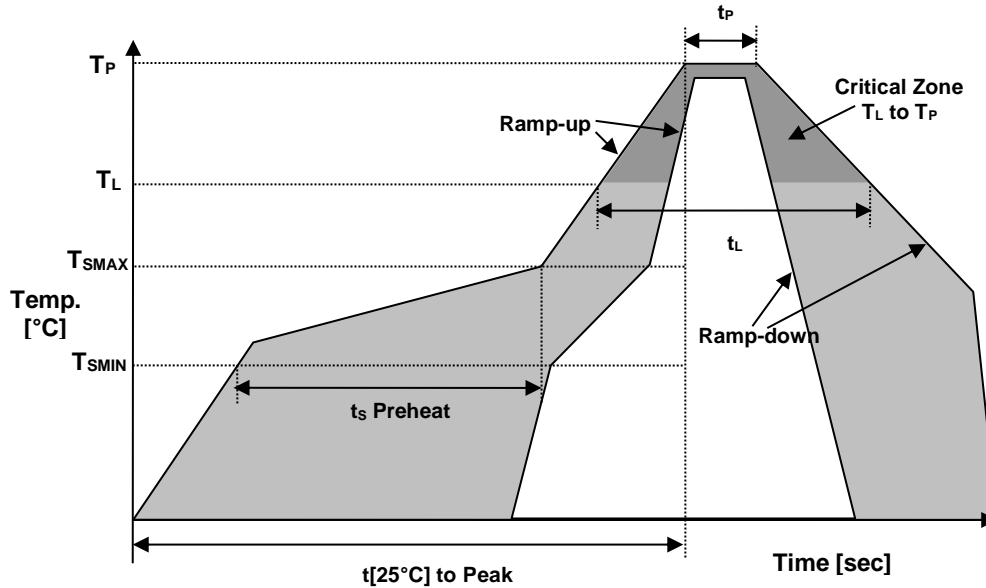
NOTE: REFER TO EIA-481 FOR DIMENSIONS

### ● 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	$T_{SMIN}$	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
ESD CLASSIFICATION LEVEL	N/A
TERMINATION FINISH	Au



• MARKING

R24.000  
xxKEYw

xx – 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	KJackson, April 4, 2018
APPROVED BY	Jlvens, April 4, 2018
REVISION	A, Initial Release B, Updated to current spec levels by XS, February 17, 2021

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