

SURFACE MOUNT CRYSTAL

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R2520-24.576-10-F-1020-EXT-TR-NS1

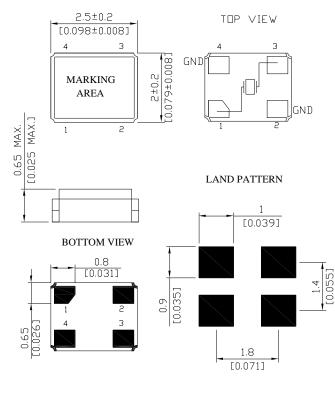
SPECIFICATIONS

PARAMETER	VALUE	
NOMINAL FREQUENCY	24.576 MHz	
MODE OF OSCILLATION	Fundamental	
FREQUENCY TOLERANCE AT 25°C	±10 ppm max	
FREQUENCY STABILITY OVER TEMPERATURE	±20 ppm max	
OPERATING TEMPERATURE RANGE	-40°C to +85°C	
STORAGE TEMPERATURE RANGE	-55°C to +125°C	
AGING	±2 ppm first year max	
LOAD CAPACITANCE	10 pF	
EQUIVALENT SERIES RESISTANCE	60 Ω max 🗢	
SHUNT CAPACITANCE	3.5 pF max	
DRIVE LEVEL	100 µW max	
INSULATION RESISTANCE	500 MΩ min @ DC 100V	



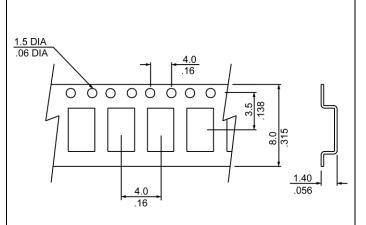
Photo is not actual part

MECHANICAL SPECIFICATION



Note: 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

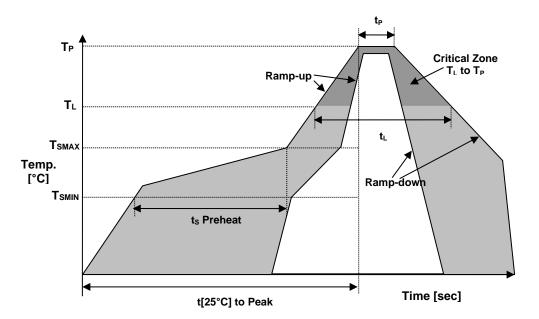
178 mm REEL DIAMETER 8 mm TAPE WIDTH, 4 mm PITCH QUANTITY: 3000 PIECES PER REEL



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• REFLOW PROFILE



Reflow profile				
Temperature Min Preheat	T _{SMIN}	150°C		
Temperature Max Preheat	T _{SMAX}	200°C		
Time (T _{SMIN} to T _{SMAX})	ts	60-180 sec.		
Temperature	TL	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	tL	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





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MARKING

R24.576 xKEyw

- x 1 or 2 digits as Internal Production ID code
- y Year 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	а	19	s	37	K
2	b	20	t	38	L
3	с	21	u	39	М
4	d	22	v	40	Ν
5	e	23	w	41	0
6	f	24	х	42	Р
7	g	25	у	43	Q
8	h	26	z	44	R
9	i	27	А	45	S
10	j	28	В	46	Т
11	k	29	С	47	U
12	1	30	D	48	V
13	m	31	E	49	W
14	n	32	F	50	Х
15	0	33	G	51	Y
16	р	34	Н	52	Z
17	q	35	Ι		
18	r	36	J		

APPROVAL

DRAWN BY	KJ, March 21, 2024
APPROVED BY	JI, March 21, 2024
REVISION	A, Initial Release

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