

### SURFACE MOUNT MICROPROCESSOR CRYSTAL

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#### RH100-20.000-12-2030-EXT-TR-NS1

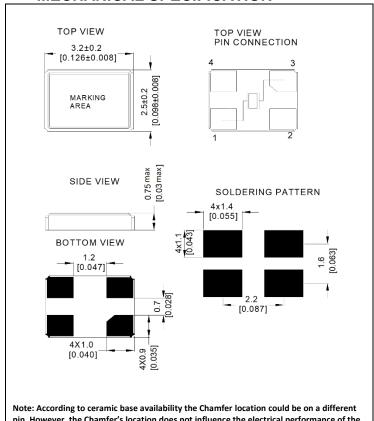
### **SPECIFICATIONS**

PARAMETER	VALUE
NOMINAL FREQUENCY	20.000 MHz
MODE OF OSCILLATION	Fundamental
FREQUENCY TOLERANCE AT 25°C	±20 ppm max
FREQUENCY STABILITY OVER TEMPERATURE	±30 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	12 pF
EQUIVALENT SERIES RESISTANCE	60 Ω max
SHUNT CAPACITANCE	3.5 pF max
DRIVE LEVEL	300 μW max
INSULATION RESISTANCE	500 MΩ min @ DC 100V



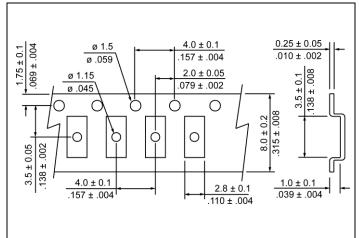
Photo is not actual part

# **MECHANICAL SPECIFICATION**



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**

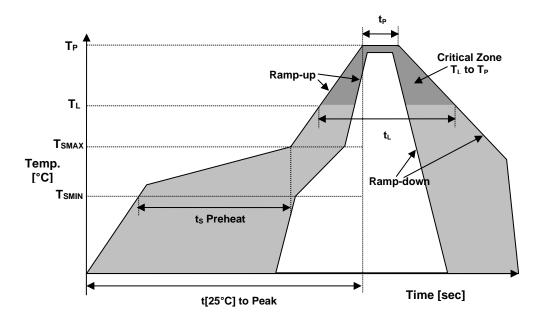
178 mm REEL DIAMETER 8 mm TAPE WIDTH, 4 mm PITCH QUANTITY: 3000 PIECES PER REEL

IN ACCORDANCE WITH EIA-481



# RH100-20.000-12-2030-EXT-TR-NS1

## 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
ESD CLASSIFICATION LEVEL	N/A
TERMINATION FINISH	Au





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### RH100-20.000-12-2030-EXT-TR-NS1

### MARKING

R20.000 xJDyw

x – 1 or 2 Digits as Internal Production ID code

y - Year code

w – Week code

YEA	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	О
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	В	46	T
11	k	29	C	47	U
12	1	30	D	48	V
13	m	31	E	49	W
14	n	32	F	50	X
15	0	33	G	51	Y
16	р	34	Н	52	Z
17	q	35	I		
18	r	36	J		

### APPROVAL

DRAWN BY	KJ, March 19, 2024
APPROVED BY	JI, March 19, 2024
REVISION	A. Initial Release

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