



AS-20.000-20

SPECIFICATIONS

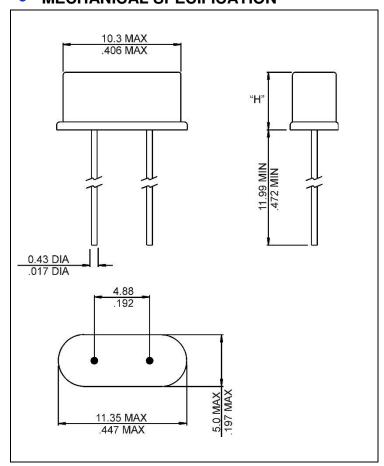
A RAMI TECHNOLOGY Company

PARAMETER	VALUE		
NOMINAL FREQUENCY	20.000 MHz		
MODE OF OSCILLATION	Fundamental		
FREQUENCY TOLERANCE AT 25°C	±30 ppm max		
FREQUENCY STABILITY OVER TEMPERATURE	±50 ppm max		
OPERATING TEMPERATURE RANGE	-20°C to +70°C		
STORAGE TEMPERATURE RANGE	-55°C to +125°C		
AGING	±5 ppm per year max		
LOAD CAPACITANCE	20 pF max		
EQUIVALENT SERIES RESISTANCE	40 Ω max		
SHUNT CAPACITANCE	7 pF max		
DRIVE LEVEL	500 μW max		
INSULATION RESISTANCE	500 MΩ min		



Photo is not actual part

MECHANICAL SPECIFICATION



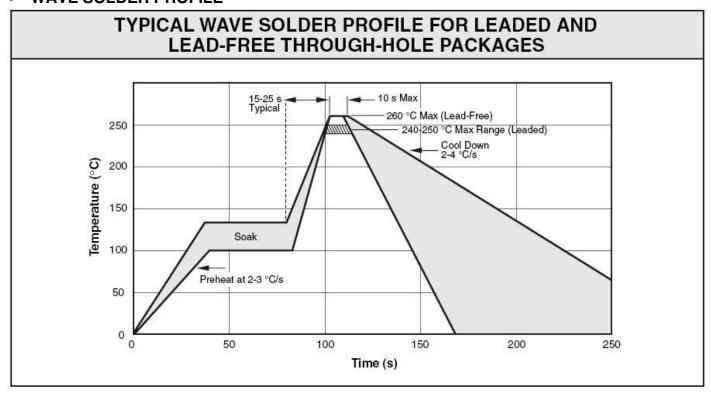
HEIGHT "H" = 3.5 mm





WAVE SOLDER PROFILE

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Wave Solder profile				
Profile Feature	SnPb eutectic	Pb-Free		
Average ramp-up rate	~200°C/second	~200°C/second		
Heating Rate during preheat	typical 1-2°/second max 4°/second	typical 1-2°/second max 4°/second		
Final preheat temperature, T _S	~130°C	~130°C		
Peak temperature, T _P	235°C	260°C		
Time within +0°C / -5°C of actual temperature, t _P	10 seconds	10 seconds		
Ramp-down rate	5°C/second max.	5°C/second max.		

NOTE: This document should serve as recommendation only. Other parameters may also affect soldering, this profile does not guarantee absolute success. Soldering profile should be determined by the equipment manufacturer and customers' process engineer.

ENVIRONMENTAL

PARAMETER	VALUE
MOISTURE SENSITIVITY LEVEL	1
RoHS	Compliant
REACH SVHC	Compliant
HALOGEN-FREE	Compliant
ESD CLASSIFICATION LEVEL	N/A
TERMINATION FINISH	Sn





LOW PROFILE MICROPROCESSOR CRYSTAL

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MARKING

R200xxAyw

x – Internal Production ID code

y – Year code

w – Week code

YEAR CODE		
Year	Code	
2015	5	
2016	6	
2017	7	
2018	8	
2019	9	
2020	0	
2021	1	
2022	2	
2023	3	
2024	4	
2025	5	

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	o	33	G	51	Y
16	p	34	Н	52	Z
17	q	35	I		
18	r	36	Ţ		

APPROVAL

DRAWN BY:	XLiu, May 20, 2019
APPROVED BY:	Jlvens, May 20, 2019
REVISION:	A, Initial Release

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