

#### LOW PROFILE MICROPROCESSOR CRYSTAL Page 1 of 3

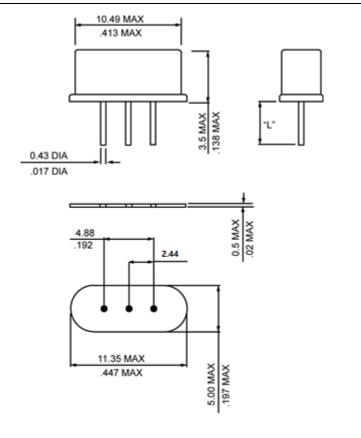
## AS-4.9152-20-EXT-3PIN-SP-TR

## • SPECIFICATIONS

PARAMETER	VALUE
NOMINAL FREQUENCY	4.9152 MHz
MODE OF OSCILLATION	Fundamental
FREQUENCY TOLERANCE AT 25°C	±30 ppm max
FREQUENCY STABILITY OVER TEMPERATURE	±50 ppm max
OPERATING TEMPERATURE RANGE	-40°C to +85°C
STORAGE TEMPERATURE RANGE	-55°C to +125°C
AGING	±5 ppm per year max
LOAD CAPACITANCE	20 pF
EQUIVALENT SERIES RESISTANCE	130 Ω max
SHUNT CAPACITANCE	7 pF max
DRIVE LEVEL	1000 µW max
REFLOW CONDITIONS	260°C for 10s max
INSULATION RESIATANCE	500 MΩ min @ DC 100V



# MECHANICAL SPECIFICATION



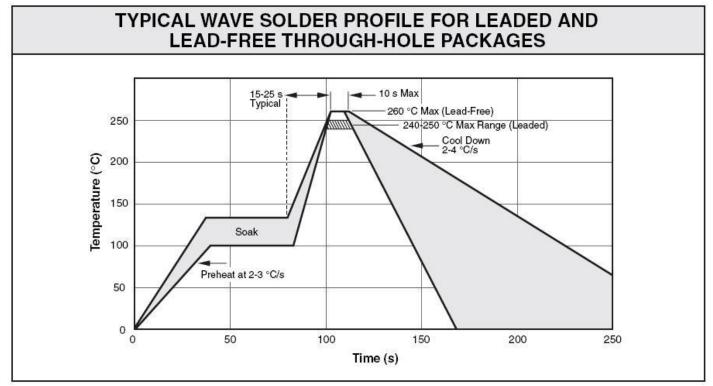
LENGTH "L" = 11.98 min Unit: mm





#### AS-4.9152-20-EXT-3PIN-SP-TR

#### • WAVE SOLDER PROFILE



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 <sub>S</sub>	~130°C	~130°C	
Peak temperature, TP	235°C	260°C	
Time within +0°C / -5°C of actual temperature, $t_{\text{P}}$	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





#### MARKING

R049xAyw

- x 1 or 2 digits as Internal Production ID code
- y Year codew - Week code

Week code
YEAR 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	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:	A, Initial Release, April 14, 2011
APPROVED BY:	A, Initial Release, April 14, 2011
REVISION:	A, Initial Release
	B, Updated to current spec levels by
	XLiu, May 7, 2020

Ratron Electronics / RAMI Technology USA, LLC, including its affiliates, employees, agents and other persons acting on its behalf (collectively Ratron/RAMI Tech), disclaim any and all liability for any errors or inaccuracies contained in this data sheet. While Ratron/RAMI Tech has made every reasonable effort ensure the accuracy of all product information, specifications and data contained herein, Ratron/RAMI Tech does not guarantee that the information is accurate, reliable or current. The product information is provided only for reference purposes only and is subject to change, correction or revision, at any time without notice. Rattron/RAMI Tech does not assume any liability arising out of an application vae of any product information is accurate, the applications shall assume all risks of such use and will agree to hold Rattron/RAMI Tech, harmless against all damages.

Copyright © 2016, Raltron Electronics / RAMI Technology USA, LLC. All rights reserved. No part of this document may be reproduced in any form without the prior written permission of Raltron Electronics / RAMI Technology USA, LLC.