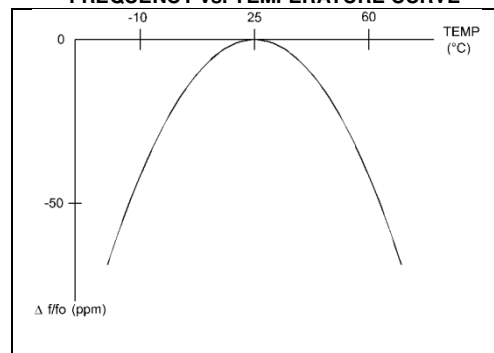


● SPECIFICATIONS

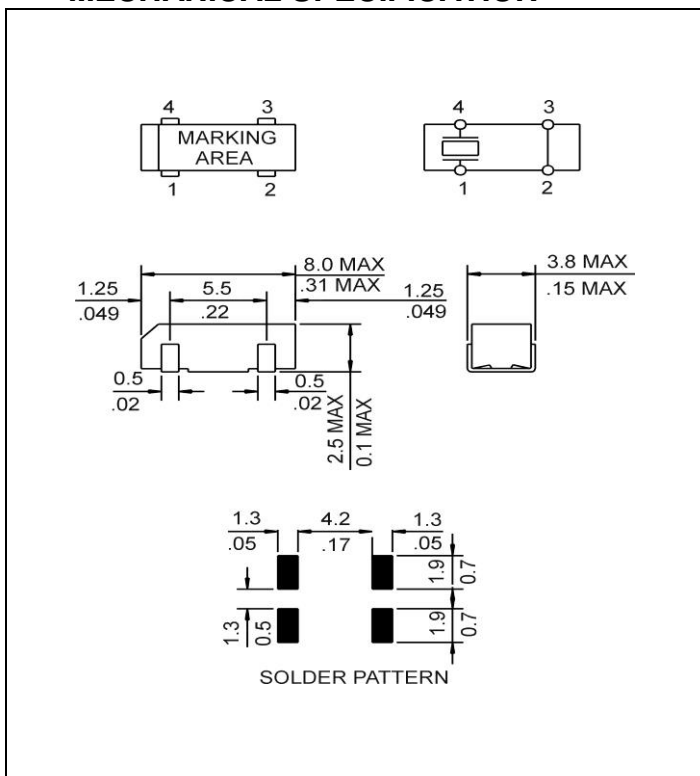
PARAMETER	VALUE
NOMINAL FREQUENCY	32.768 KHz
FREQUENCY TOLERANCE AT 25°C	±5 ppm max
TURNOVER TEMPERATURE	+25°C ±5°C
PARABOLIC CURVATURE CONSTANT	(-0.04 ±0.006) ppm/°C ² ↵
OPERATING TEMPERATURE RANGE	-40°C to +85°C
STORAGE TEMPERATURE RANGE	-40°C to +85°C
AGING (FIRST YEAR)	±3 ppm max
LOAD CAPACITANCE	12.5 pF
EQUIVALENT SERIES RESISTANCE	50K Ω max
SHUNT CAPACITANCE	1.25 pF typ ↵
QUALITY FACTOR	40000 min ↵
MOTIONAL CAPACITANCE	0.003 pF typ
CAPACITANCE RATIO	450 typ
DRIVE LEVEL	1 μW ± 0.2 μW ↵
INSULATION RESISTANCE	500 MΩ min



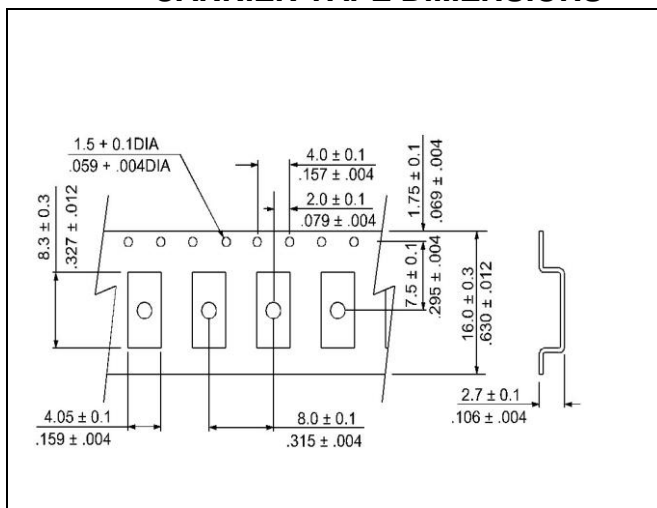
● FREQUENCY vs. TEMPERATURE CURVE



● MECHANICAL SPECIFICATION



● CARRIER TAPE DIMENSIONS



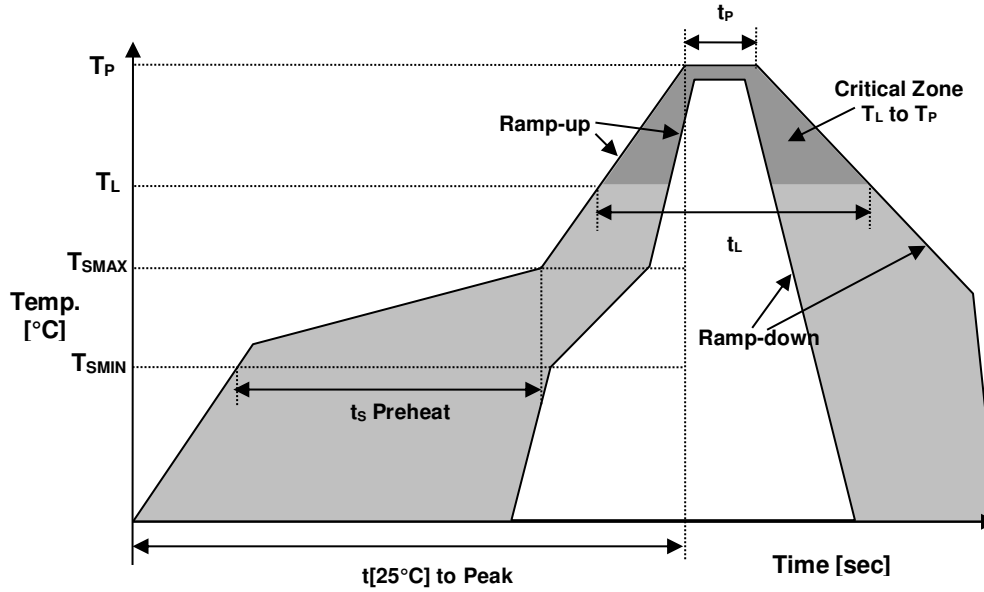
NOTE: REFER TO EIA-481 FOR DIMENSIONS

● PACKAGING

178 mm REEL DIAMETER
 16 mm TAPE WIDTH, 8 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	Exemption 7A
REACH SVHC	Compliant
HALOGEN-FREE	Compliant
ESD CLASSIFICATION LEVEL	N/A
TERMINATION FINISH	Sn
UNIT WEIGHT (GRAMS)	0.14



● MARKING

x3FmyR

x – Internal Production ID code

m – Month code

y – Year code

MONTH CODE	
MONTH	CODE
JANUARY	A
FEBRUARY	B
MARCH	C
APRIL	D
MAY	E
JUNE	F
JULY	G
AUGUST	H
SEPTEMBER	J
OCTOBER	K
NOVEMBER	L
DECEMBER	M

YEAR CODE	
Year	Code
2011	1
2012	2
2013	3
2014	4
2015	5
2016	6
2017	7
2018	8
2019	9

● APPROVAL

Drawn By:	KJackson, June 21, 2016
Approved By:	KJackson, June 21, 2016
Revision:	A, Initial Release
	B, Updated to current spec levels KJ 10/8/19

Raltron Electronics / RAMI Technology USA, LLC, including its affiliates, employees, agents and other persons acting on its behalf (collectively Raltron/RAMI Tech), disclaim any and all liability for any errors or inaccuracies contained in this data sheet. While Raltron/RAMI Tech has made every reasonable effort ensure the accuracy of all product information, specifications and data contained herein, Raltron/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. Raltron/RAMI Tech does not assume any liability arising out of an application or use of any product described herein and disclaims any warranties expressed or implied. The user of products in such applications shall assume all risks of such use and will agree to hold Raltron/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.