

**R2016-32.000-10-F-1010-TR-B1B  
REV B**

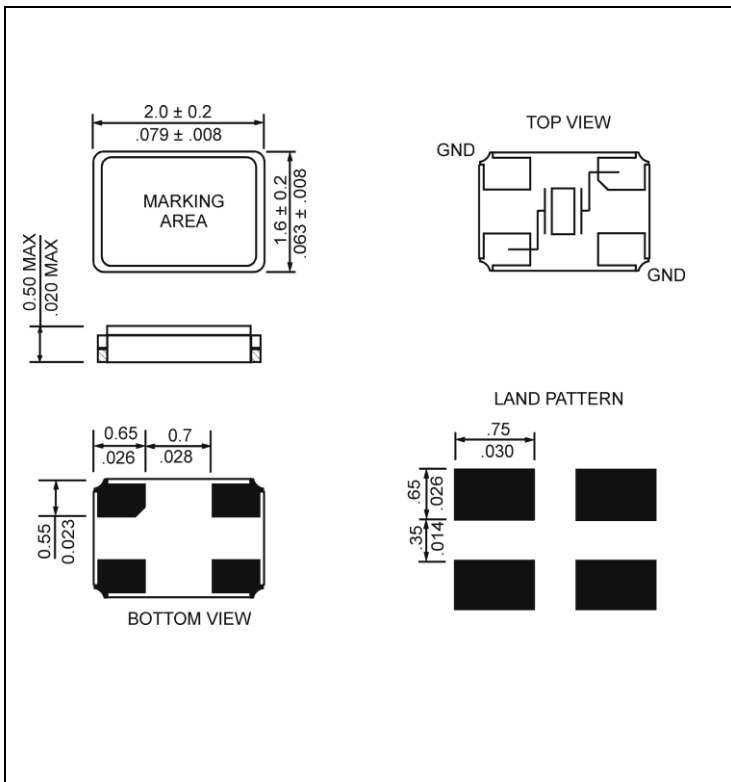
**SPECIFICATIONS**

PARAMETER	VALUE
NOMINAL FREQUENCY	32.000 MHz
MODE OF OSCILLATION	FUNDAMENTAL
FREQUENCY TOLERANCE AT 25°C	±10 PPM MAXIMUM
FREQUENCY STABILITY OVER TEMPERATURE	±10 PPM MAXIMUM
OPERATING TEMPERATURE RANGE	-30°C TO +70°C ↔
STORAGE TEMPERATURE RANGE	-40°C TO +85°C
AGING	±3 PPM PER YEAR MAXIMUM
LOAD CAPACITANCE	10 pF
EQUIVALENT SERIES RESISTANCE	40 Ω ↔
SHUNT CAPACITANCE	7 pF MAXIMUM
UNWANTED MODE	FROM F <sub>n</sub> TO F <sub>n</sub> +500kHz
R <sub>p</sub> /R <sub>1</sub>	2 MINIMUM
DRIVE LEVEL	100 μW MAXIMUM
G-SENSITIVITY	2 PPB/G MAXIMUM
SHOCK RESISTANCE	±5 PPM MAXIMUM 75 cm DROP TEST ON A HARD WOOD SURFACE
REFLOW CONDITIONS	260°C ±5°C FOR 10s MAXIMUM

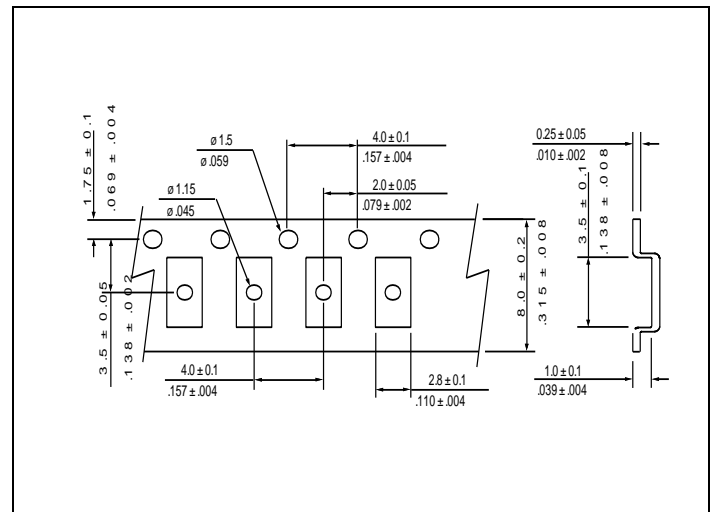


Photo is not actual part

**MECHANICAL SPECIFICATION**



**CARRIER TAPE DIMENSIONS**



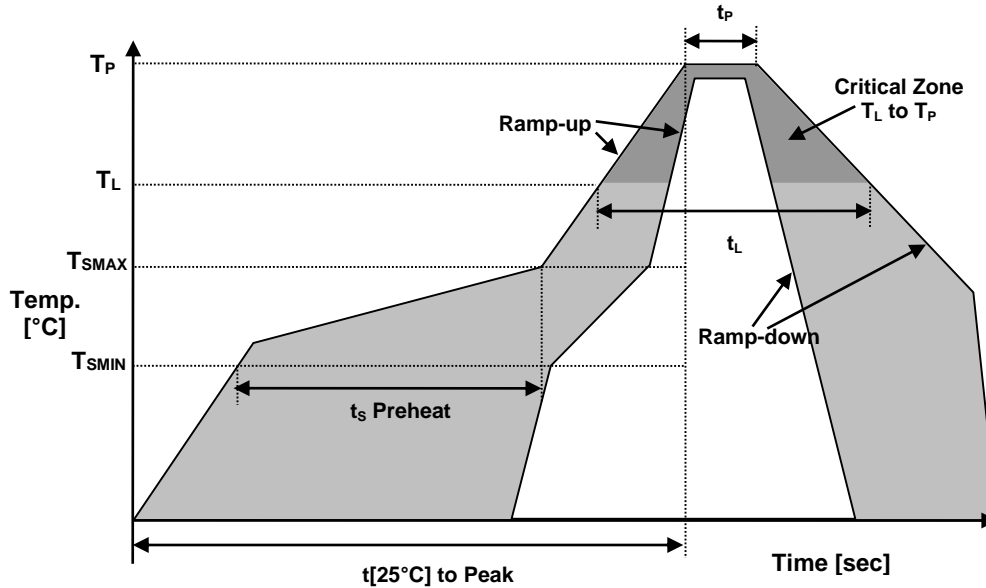
NOTE: REFER TO EIA-481 FOR DIMENSIONS

**● PACKAGING**

178 mm REEL DIAMETER  
 8 mm TAPE WIDTH, 4 mm PITCH  
 QUANTITY: 1000 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-2	6/6 COMPLIANT & LEAD FREE
REACH SVHC	COMPLIANT
HALOGEN-FREE	COMPLIANT
ESD CLASSIFICATION LEVEL	N/A
TERMINATION FINISH	Au



• MARKING

R320  
XKyw

x – Internal Production ID code  
y – Year code  
w – Week code

YEAR CODE	
Year	Code
2011	1
2012	2
2013	3
2014	4
2015	5
2016	6
2017	7
2018	8
2019	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	O
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	B	46	T
11	k	29	C	47	U
12	l	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	H	52	Z
17	q	35	I		
18	r	36	J		

• APPROVAL

DRAWN BY:	KJackson, February 9, 2016
APPROVED BY:	KJackson, February 9, 2016
REVISION:	A, Initial Release
	B, Added G-Sensitivity Spec and revised ESR 2/10/16 KJ



A **RAMI TECHNOLOGY** Company

**SURFACE MOUNT CRYSTAL**

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