

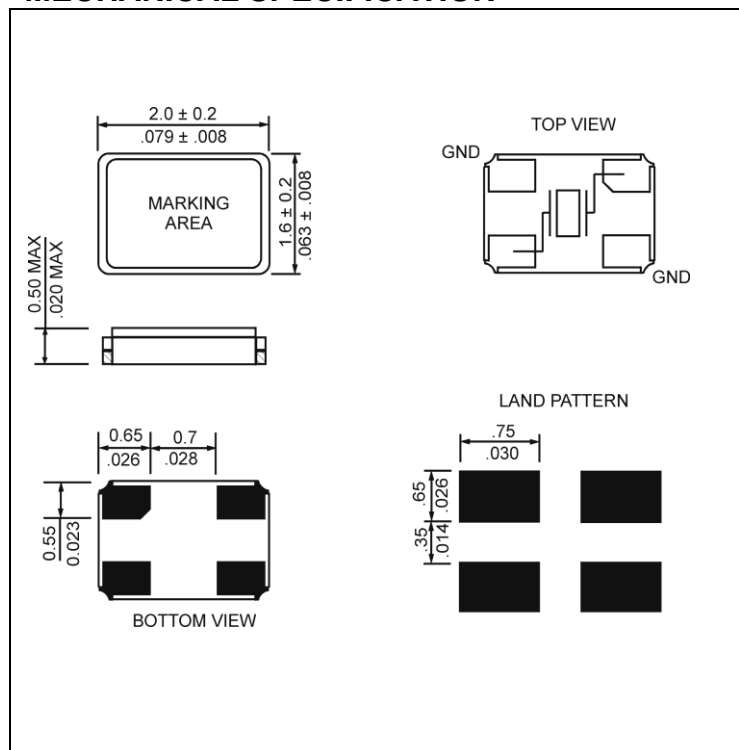
## SPECIFICATIONS

PARAMETER	VALUE
NOMINAL FREQUENCY	48.000 MHz
MODE OF OSCILLATION	FUNDAMENTAL
FREQUENCY TOLERANCE AT 25°C	±50 PPM MAXIMUM
FREQUENCY STABILITY OVER TEMPERATURE	±50 PPM MAXIMUM
OPERATING TEMPERATURE RANGE	-10°C TO +60°C
STORAGE TEMPERATURE RANGE	-40°C TO +85°C
AGING	±3 PPM PER YEAR MAXIMUM
LOAD CAPACITANCE	6 pF
EQUIVALENT SERIES RESISTANCE	60 Ω
SHUNT CAPACITANCE	7 pF MAXIMUM
DRIVE LEVEL	500 μW MAXIMUM
SHOCK RESISTANCE	±5 PPM MAXIMUM 75 cm DROP TEST ONTO A HARD WOOD SURFACE
REFLOW CONDITIONS	260°C ±5°C FOR 10s MAXIMUM

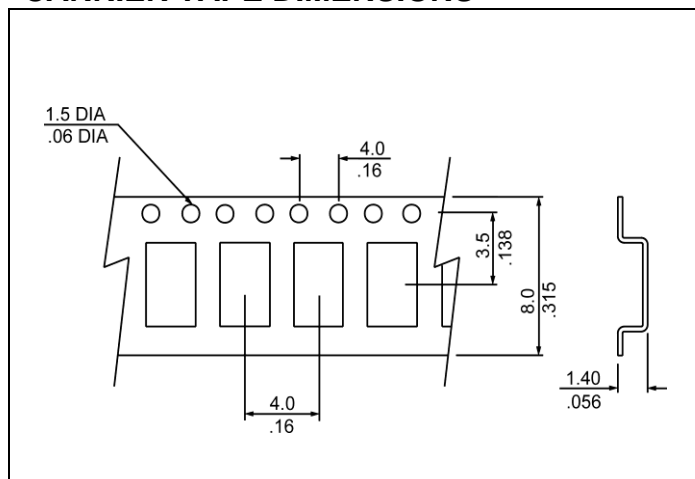


Photo is not actual part

## MECHANICAL SPECIFICATION



## CARRIER TAPE DIMENSIONS

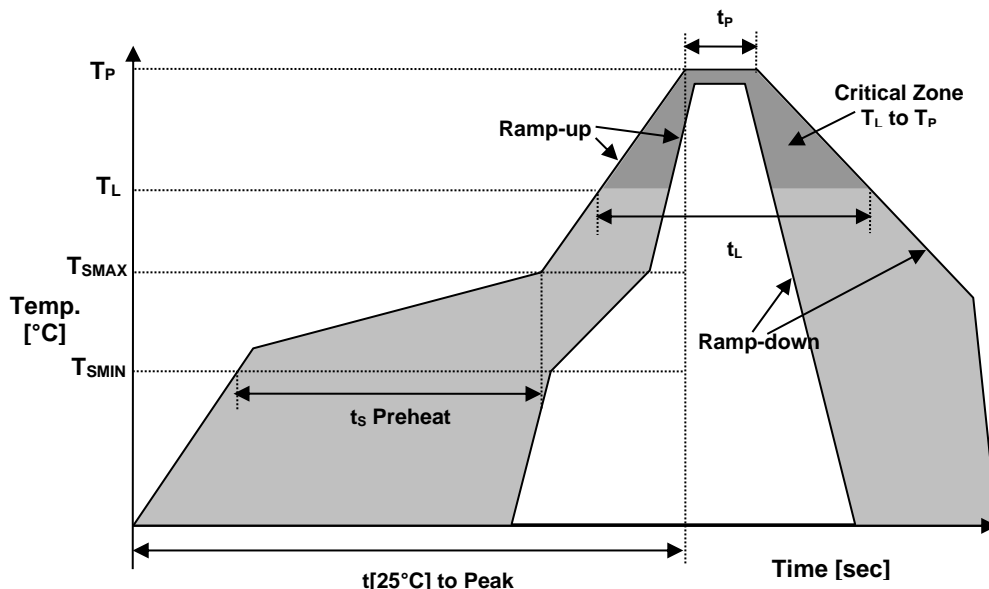


NOTE: REFER TO EIA-481 FOR DIMENSIONS

### ● 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 <sub>S</sub> MIN	150°C
Temperature Max Preheat	T <sub>S</sub> MAX	200°C
Time (T <sub>S</sub> MIN to T <sub>S</sub> MAX)	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-2	6/6 COMPLIANT & LEAD FREE
REACH SVHC	COMPLIANT
HALOGEN-FREE	COMPLIANT
ESD CLASSIFICATION LEVEL	N/A
TERMINATION FINISH	Au



## • MARKING

R480

x6yw

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, May 9, 2016
APPROVED BY:	KJackson, May 9, 2016
REVISION:	A, Initial Release