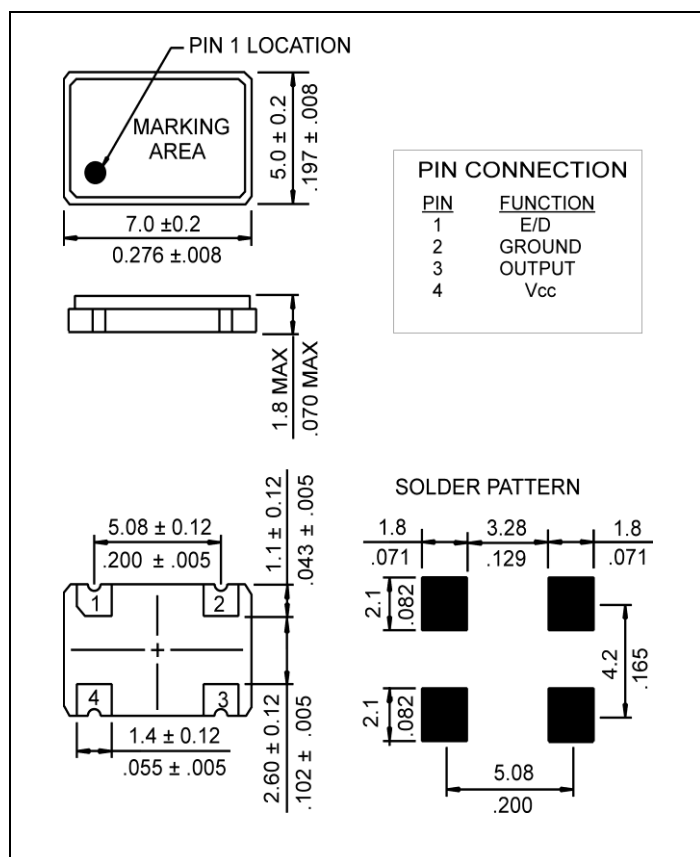


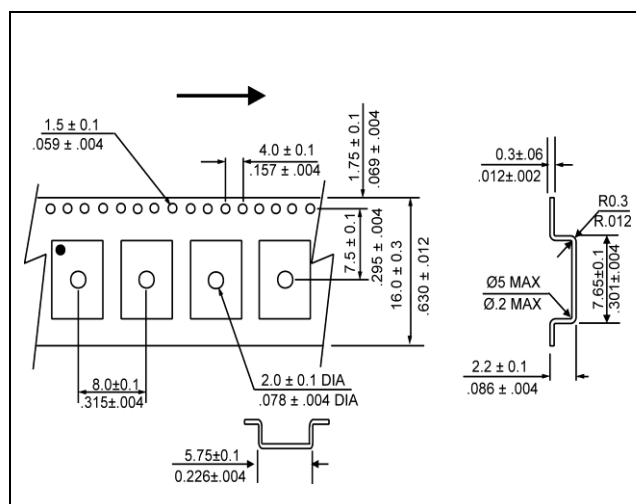
ELECTRICAL SPECIFICATION

PARAMETER	SYMBOL	CONDITIONS	VALUE	UNIT
Frequency, nom	fo	-	20.000	MHz
Supply voltage, nom.	Vcc	Vcc ±10%	5V	V
Supply current, max.	Is	Vcc=3.3 VDC; Ta=+25°C; Load=50 pF CMOS or 5 TTL MAX	45	mA
Output Voltage Levels	V _{OH} V _{OL}	Logic 1 Logic 0	0.9 min 0.5 max	VDC VDC
Duty cycle	DC	@ 50% of signal	40...60	%
Rise time / Fall time, max.	tr / tf	20%~80% Vout, 80%~20% Vout,	5	ns
Jitter, RMS, max.	J	1σ, 12KHz < F _J < 20MHz	1.0	ps
Overall freq. stability, max.	Δf/fc	Inclusive of 25° Tolerance, Operating Temperature Range, Voltage & Load Variations, Aging, Shock and Vibration.	±100	ppm
Output Enabled / Disabled	En Dis	Pin 1: High Voltage or No Connect, Pin 3 Enabled Pin 1: Ground, Pin 3 Disabled	2.2 min 0.8 max	VDC VDC
Operating temperature range	Ta	-	-10...+70	°C
Storage temperature range	T(stg)	-	-55...+125	°C

MECHANICAL SPECIFICATION



OUTLINE TOLERANCE: ±0.015" / 0.4mm (Unless otherwise specified)

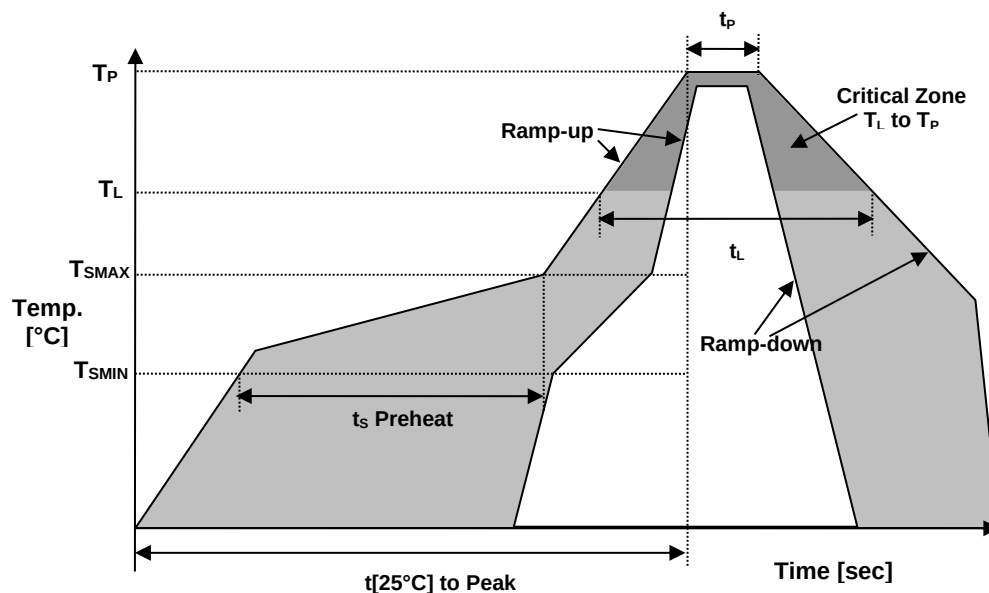


PACKAGING

254 mm REEL DIAMETER
16 mm TAPE WIDTH, 8 mm PITCH
QUANTITY: 1000 PIECES PER REEL

IN ACCORDANCE WITH EIA-481

REFLOW PROFILE



Reflow profile		
Temperature Min Preheat	$T_{S\min}$	150°C
Temperature Max Preheat	$T_{S\max}$	200°C
Time ($T_{S\min}$ to $T_{S\max}$)	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	$t[25^\circ\text{C}] \text{ to Peak}$	480 sec.
Time	t_L	60-150 sec.

ENVIRONMENTAL

PARAMETER	VALUE
MOISTURE SENSITIVITY LEVEL	1
RoHS	Compliant
REACH-SVHC	Compliant
HALOGEN-FREE	Compliant
TERMINATION FINISH	Au
UNIT WEIGHT (grams)	0.155





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CLOCK OSCILLATOR

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CO4910-20.000-TR

MARKING

Rxx20.0

•9Cyww

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	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, March 21, 2014
APPROVED BY:	KJackson, March 21, 2014
REVISION:	A, Initial Release
	B, Updated to current spec levels KJ 9/24/20

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