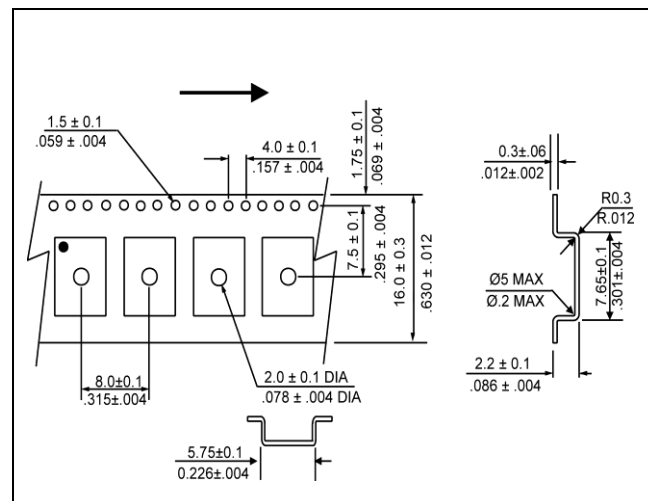
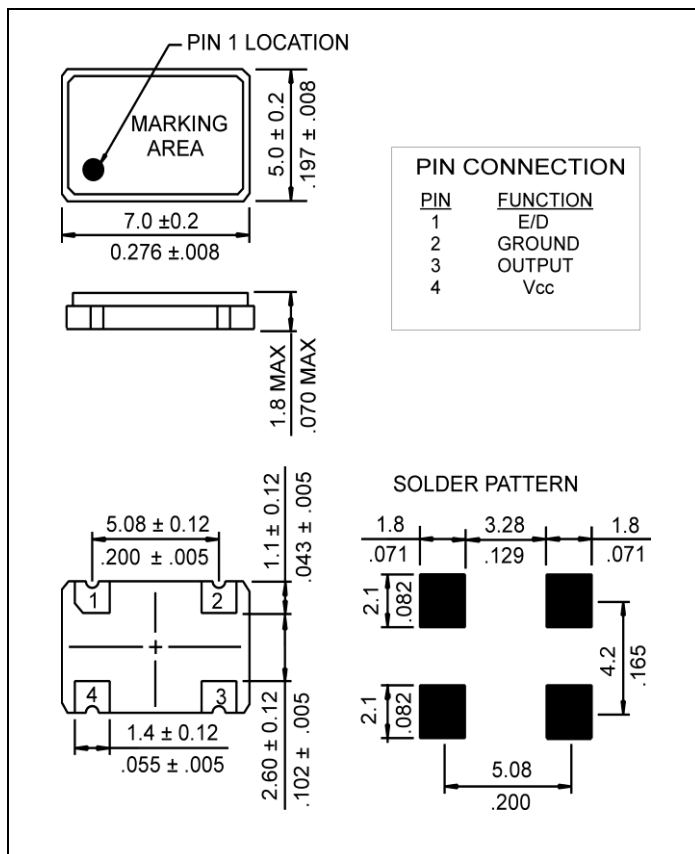


#### ELECTRICAL SPECIFICATION

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=20 pF CMOS or 5 TTL MAX	45.0	mA
Output Voltage Levels	V <sub>OH</sub> V <sub>OL</sub>	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 <sub>J</sub> < 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



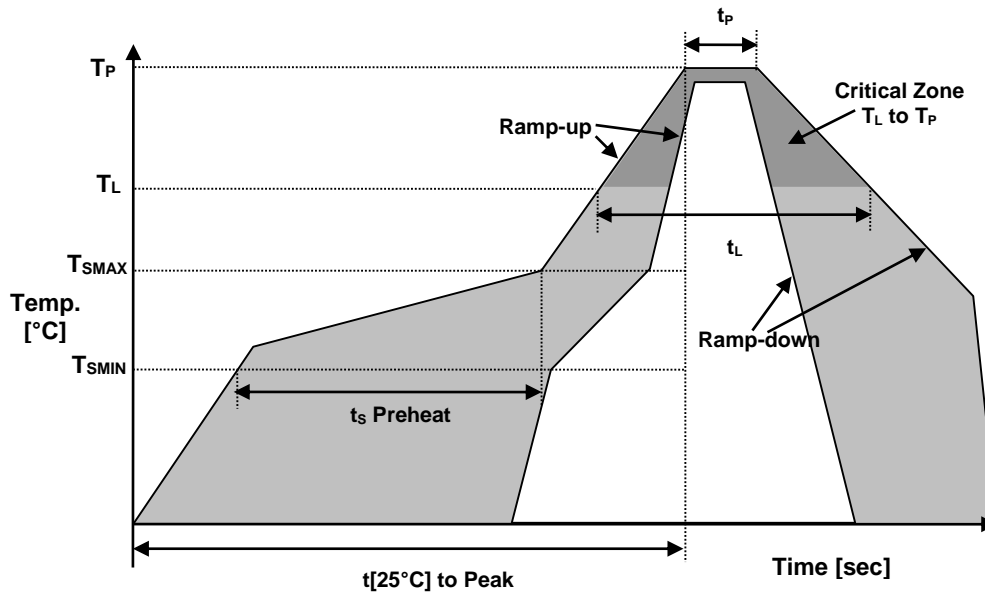
#### PACKAGING

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

IN ACCORDANCE WITH EIA-481

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

● REFLOW PROFILE



Reflow profile		
Temperature Min Preheat	T <sub>SMIN</sub>	150°C
Temperature Max Preheat	T <sub>SMAX</sub>	200°C
Time (T <sub>SMIN</sub> to T <sub>SMAX</sub> )	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 LEAD FREE
REACH-SVHC	COMPLIANT
HALOGEN-FREE	COMPLIANT
TERMINATION FINISH	Au
UNIT WEIGHT (grams)	0.155



## MARKING

Rxx20.0  
•9Cyww

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, March 21, 2014
APPROVED BY:	KJackson, March 21, 2014
REVISION:	A, Initial Release