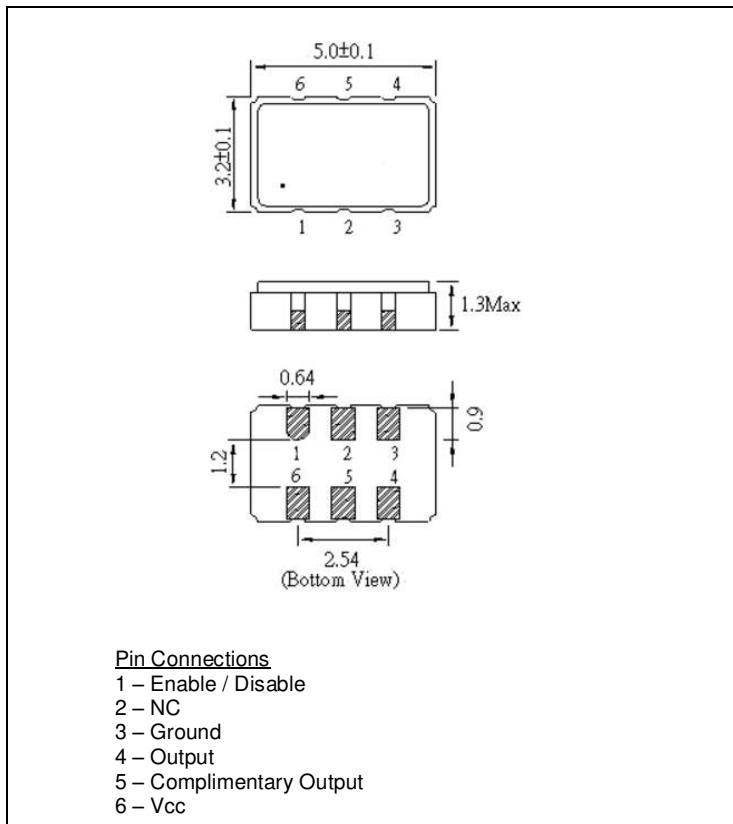


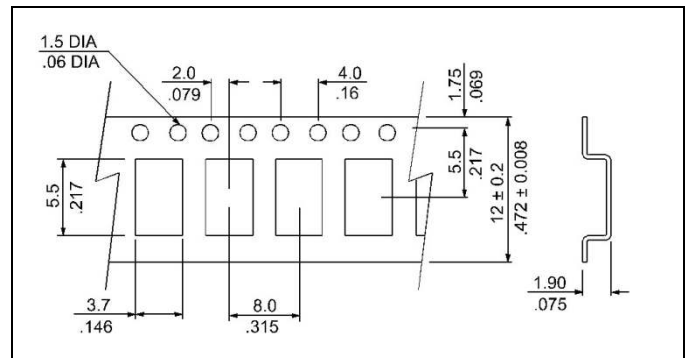
#### ELECTRICAL SPECIFICATION

PARAMETER	SYMBOL	CONDITIONS	VALUE	UNIT
Nominal Frequency	$f_o$	$T_a=25^{\circ}\text{C}$	150.000	MHz
Supply Voltage	$V_{CC}$	$V_{CC} \pm 5\%$	3.3	VDC
Supply current, max	$I_s$	$V_{CC}; T_a=+25^{\circ}\text{C};$	100	mA
Operating Temperature Range	$T_a$	---	-20 to +70	$^{\circ}\text{C}$
Storage temperature	$T_{(stg)}$	Absolute max	-55 to +125	$^{\circ}\text{C}$
Output Logic Type	---		LVDS	
Overall Freq. Stability, Max.	$\Delta f/f_o$	Inclusive of $25^{\circ}\text{C}$ Tolerance and Changes due to Operating Temperature, Supply Voltage, Load, Aging, Shock and Vibration	$\pm 50$	ppm
Output Voltage	$V_{OL}$	Logic "0" Level	0.9 Min	VDC
	$V_{OH}$	Logic "1" Level	1.6 Max	VDC
Output Load	---	Connected between Out and Complementary Out	100	$\Omega$
Enable / Disable Function	E/D	Pin 1: N.C. (Open) or High ( $0.7 * V_{CC}$ )	Pin 4 & 5 – Oscillation (Enabled)	
		Pin 1: Low ( $0.3 * V_{CC}$ )	Pin 4 & 5 – High Impedance (Disabled)	
Symmetry (Duty Cycle)	DC	@50% Vdd	45 to 55	%
Rise Time and Fall Time	$t_r / t_f$	@20% to 80% Vdd	1.0	ns
Jitter, RMS, max.	J	$1\sigma, 12\text{kHz} < F_j < 20\text{MHz}$	1.0	ps

#### MECHANICAL SPECIFICATION



#### CARRIER TAPE DIMENSIONS



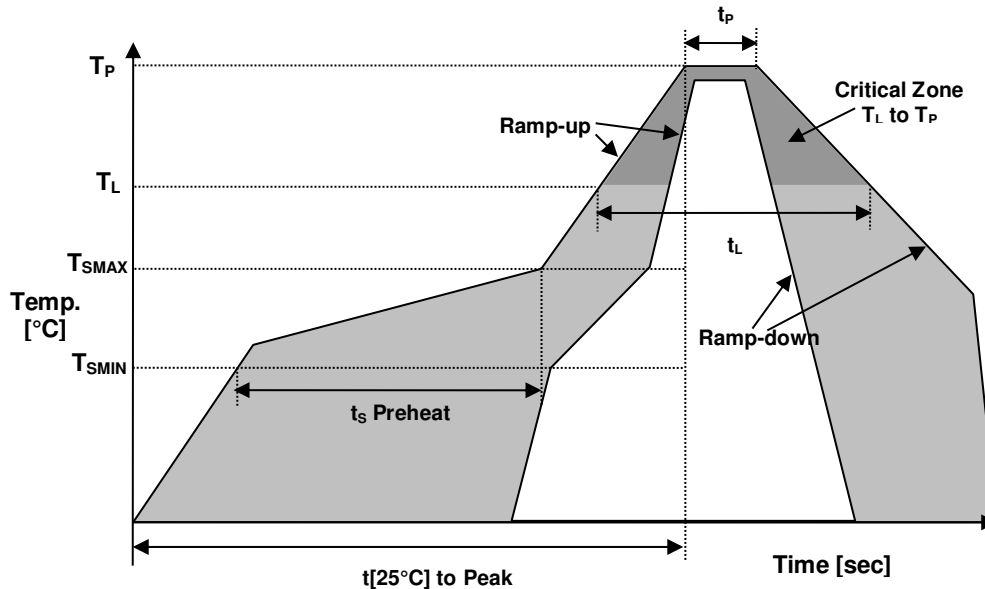
NOTE: REFER TO EIA-481 FOR DIMENSIONS NOT LISTED

#### PACKAGING

178 mm REEL DIAMETER  
 12 mm TAPE WIDTH, 8 mm PITCH  
 QUANTITY: 1000 PIECES PER REEL

NOTE: A capacitor of 0.01  $\mu\text{F}$  between Vcc and Ground is recommended

### 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	COMPLIANT
REACH-SVHC	COMPLIANT
HALOGEN-FREE	COMPLIANT
TERMINATION FINISH	Au



#### MARKING

Rx150

•3Byw

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

RALTRON	
DRAWN BY:	LP, June 02, 2017
APPROVED BY:	JL, June 02, 2017
REVISION:	A, Initial Release

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