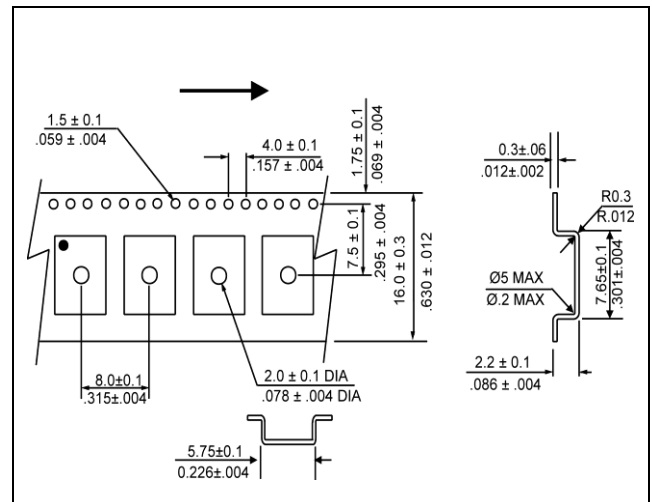
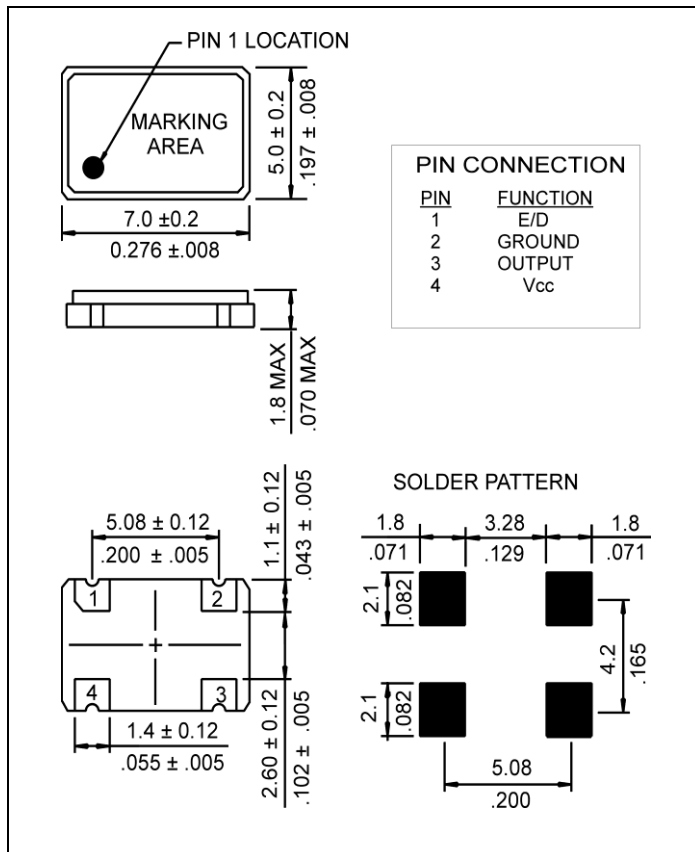


#### ELECTRICAL SPECIFICATION

| PARAMETER                     | SYMBOL                             | CONDITIONS                                                                                                      | VALUE              | UNIT       |
|-------------------------------|------------------------------------|-----------------------------------------------------------------------------------------------------------------|--------------------|------------|
| Frequency, nom                | fo                                 | -                                                                                                               | 32.768             | MHz        |
| Supply voltage, nom.          | Vcc                                | Vcc ±10%                                                                                                        | 3.3                | V          |
| Supply current, max.          | Is                                 | Vcc=3.3 VDC; Ta=+25°C;<br>Load=20 pF CMOS or 5 TTL MAX                                                          | 25.0               | mA         |
| Output Voltage Levels         | V <sub>OH</sub><br>V <sub>OL</sub> | Logic 1<br>Logic 0                                                                                              | 2.8 MIN<br>0.4 MAX | VDC<br>VDC |
| Duty cycle                    | DC                                 | @ 50% of signal                                                                                                 | 45...55            | %          |
| Rise time / Fall time, max.   | tr / tf                            | 20%~80% Vout, 80%~20% Vout,                                                                                     | 3                  | ns         |
| Jitter, RMS, max.             | J                                  | 1σ, 12KHz < Fj < 20MHz                                                                                          | 1.0                | ps         |
| Overall freq. stability, max. | Δf/fc                              | Inclusive of 25° Tolerance, Operating Temperature Range, Voltage & Load Variations, Aging, Shock and Vibration. | ±50.0              | ppm        |
| Output Enabled / Disabled     | En<br>Dis                          | Pin 1: High Voltage or No Connect, Pin 3 Enabled<br>Pin 1: Ground, Pin 3 Disabled                               | 2.2 MIN<br>0.8 MAX | VDC<br>VDC |
| Operating temperature range   | Ta                                 | -                                                                                                               | -10...+70          | °C         |
| Storage temperature range     | T(stg)                             | -                                                                                                               | -55...+125         | °C         |

#### MECHANICAL SPECIFICATION



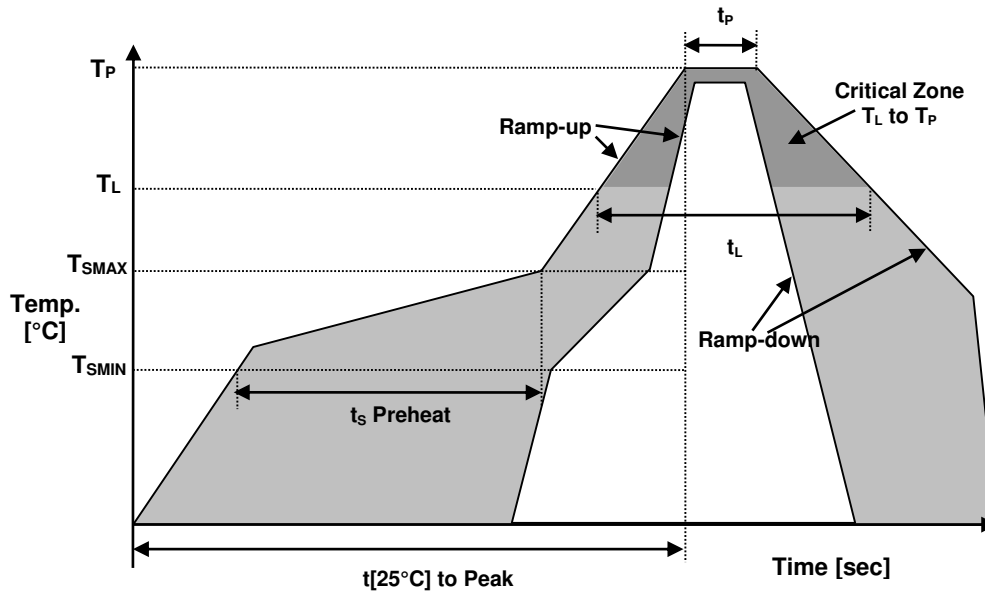
#### PACKAGING

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                        | $T_{S_{MIN}}$                 | 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 | $t[25^\circ\text{C}]$ to Peak | 480 sec.     |
| Time                                           | $t_L$                         | 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

Rxx32.76  
•3Byww

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 9, 2016 |
| APPROVED BY: | KJackson, March 9, 2016 |
| REVISION:    | A, Initial Release      |