

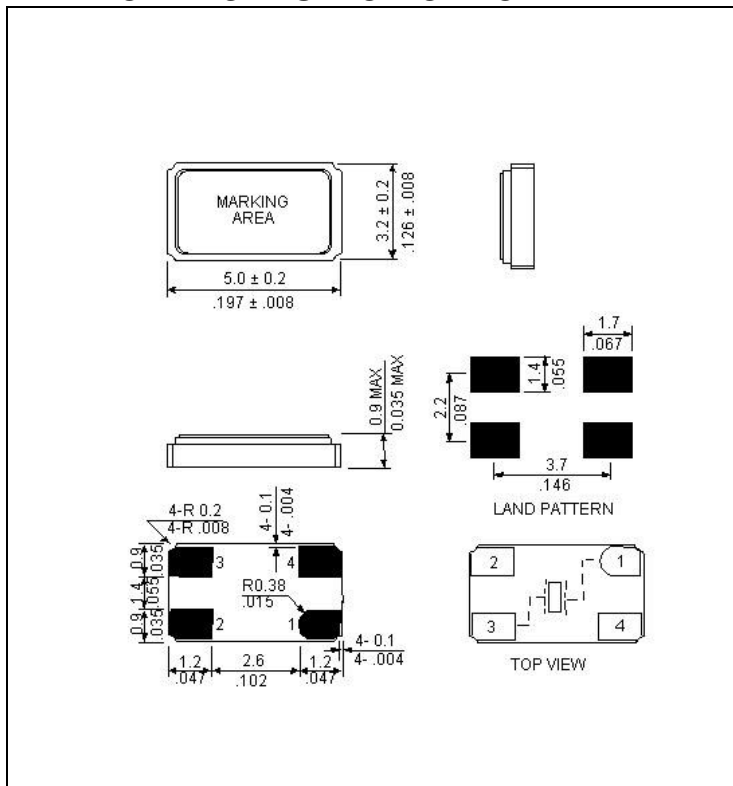
● SPECIFICATIONS

| PARAMETER                            | VALUE                   |
|--------------------------------------|-------------------------|
| NOMINAL FREQUENCY                    | 48.000 MHz              |
| MODE OF OSCILLATION                  | Fundamental             |
| FREQUENCY TOLERANCE AT 25°C          | ±30 ppm max             |
| FREQUENCY STABILITY OVER TEMPERATURE | ±30 ppm max             |
| OPERATING TEMPERATURE RANGE          | -40°C to +85°C Standard |
| STORAGE TEMPERATURE RANGE            | -40°C to +85°C          |
| AGING                                | ±2 ppm per year max     |
| LOAD CAPACITANCE                     | 18 pF                   |
| EQUIVALENT SERIES RESISTANCE         | 40 Ω max                |
| SHUNT CAPACITANCE                    | 5 pF max                |
| DRIVE LEVEL                          | 100 μW typ, 500 μW max  |

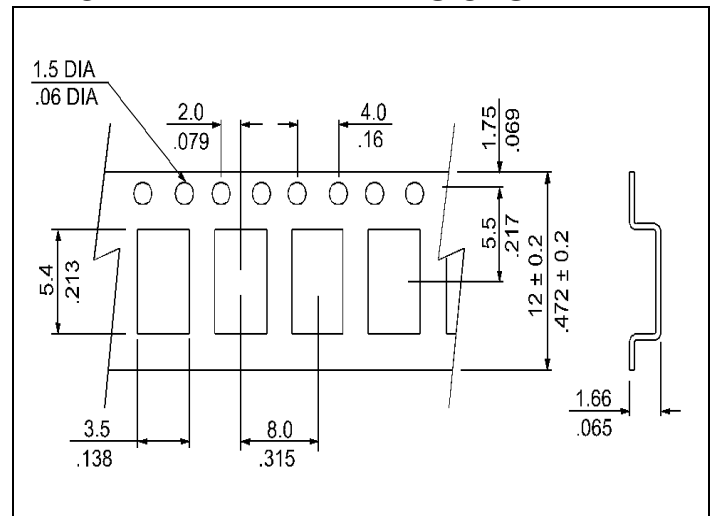


Photo is not actual part

● MECHANICAL SPECIFICATION



● CARRIER TAPE DIMENSIONS

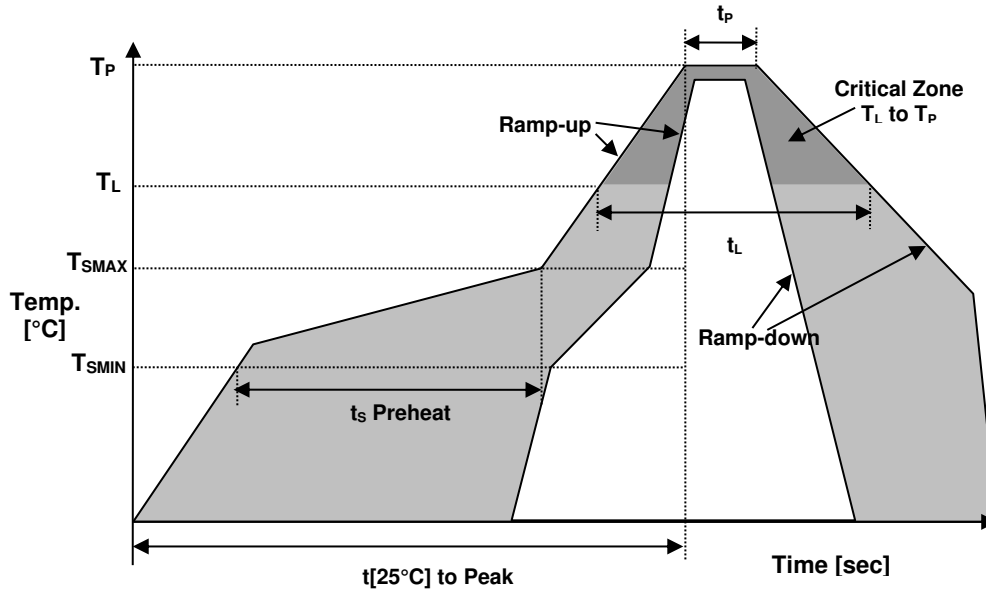


NOTE: REFER TO EIA-481 FOR DIMENSIONS

● PACKAGING

178 mm REEL DIAMETER  
 8 mm TAPE WIDTH, 4 mm PITCH  
 QUANTITY: 3000 PIECES PER REEL  
 IN ACCORDANCE WITH EIA-481

● REFLOW PROFILE



| Reflow profile                        |                      |              |
|---------------------------------------|----------------------|--------------|
| Temperature Min Preheat               | $T_{SMIN}$           | 125°C        |
| Temperature Max Preheat               | $T_{SMAX}$           | 150°C        |
| Time ( $T_{SMIN}$ to $T_{SMAX}$ )     | $t_s$                | 30-60 sec.   |
| Temperature                           | $T_L$                | 217°C        |
| Peak Temperature                      | $T_P$                | 230°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 $t_{[25°C]}$ to Peak Temperature | $t_{[25°C]}$ to Peak | 120 sec.     |
| Time                                  | $t_L$                | 60-150 sec.  |

● ENVIRONMENTAL

| PARAMETER                  | VALUE     |
|----------------------------|-----------|
| MOISTURE SENSITIVITY LEVEL | 1         |
| RoHS                       | COMPLIANT |
| REACH SVHC                 | COMPLIANT |
| HALOGEN-FREE               | COMPLIANT |
| ESD CLASSIFICATION LEVEL   | N/A       |
| TERMINATION FINISH         | Au        |



● MARKING

R48.00  
XxBFyw

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

| RALTRON      |   |
|--------------|---|
| DRAWN BY:    | KJackson, June 17, 2015                                     |
| APPROVED BY: | KJackson, June 17, 2015                                     |
| REVISION:    | A, Initial Release  |
|              | B, Updated the Current Revision Levels<br>AR, June 03, 2020 |