

#### SURFACE MOUNT MICROPROCESSOR CRYSTAL

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#### RH100-38.400-10-F-2030-EXT-TR

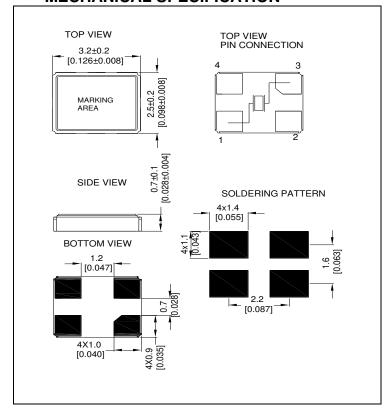
#### SPECIFICATIONS

| PARAMETER                            | VALUE                 |  |  |
|--------------------------------------|-----------------------|--|--|
| NOMINAL FREQUENCY                    | 38.400 MHz            |  |  |
| MODE OF OSCILLATION                  | Fundamental           |  |  |
| FREQUENCY TOLERANCE AT 25°C          | ±20 ppm max           |  |  |
| FREQUENCY STABILITY OVER TEMPERATURE | ±30 ppm max           |  |  |
| OPERATING TEMPERATURE RANGE          | -40°C to +85°C        |  |  |
| STORAGE TEMPERATURE RANGE            | -40°C to +85°C        |  |  |
| AGING                                | ±2 ppm first year max |  |  |
| LOAD CAPACITANCE                     | 10 pF                 |  |  |
| EQUIVALENT SERIES RESISTANCE         | 50 Ω max              |  |  |
| SHUNT CAPACITANCE                    | 3.5 pF max            |  |  |
| DRIVE LEVEL                          | 200 μW max            |  |  |
| REFLOW CONDITIONS                    | 260°C for 10 sec max  |  |  |

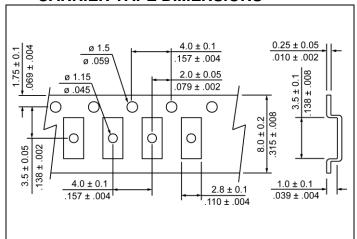


Photo is not actual part

### MECHANICAL SPECIFICATION



### CARRIER TAPE DIMENSIONS



NOTE: REFER TO EIA-481 FOR DIMENSIONS

# PACKAGING

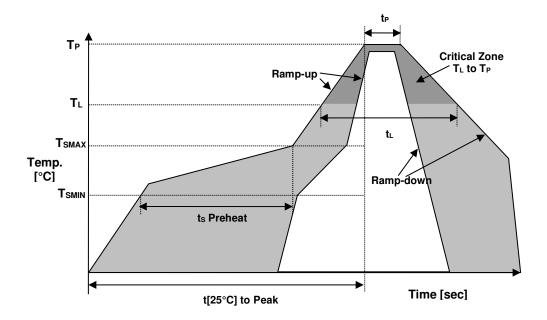
178 mm REEL DIAMETER 8 mm TAPE WIDTH, 4 mm PITCH QUANTITY: 3000 PIECES PER REEL

IN ACCORDANCE WITH EIA-481



# RH100-38.400-10-F-2030-EXT-TR

### 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> ) | ts                | 60-180 sec.  |  |  |
| Temperature                                    | $T_L$             | 217°C        |  |  |
| Peak Temperature                               | T <sub>P</sub>    | 260°C        |  |  |
| Ramp-up rate                                   | Rup               | 3°C/sec max. |  |  |
| Ramp-down rate                                 | R <sub>DOWN</sub> | 6°C/sec max. |  |  |
| Time within 5°C of Peak Temperature            | t₽                | 10 sec.      |  |  |
| Time t[25°C] to Peak Temperature               | t[25°C] to Peak   | 480 sec.     |  |  |
| Time   | t∟                | 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        |





## SURFACE MOUNT MICROPROCESSOR CRYSTAL

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### RH100-38.400-10-F-2030-EXT-TR

#### MARKING

R38.400 xxKDyw

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   | О    |
| 6    | f                     | 24   | X    | 42   | P    |
| 7    | g                     | 25   | У    | 43   | Q    |
| 8    | h                     | 26   | Z    | 44   | R    |
| 9    | i                     | 27   | A    | 45   | S    |
| 10   | j                     | 28   | В    | 46   | T    |
| 11   | k                     | 29   | C    | 47   | U    |
| 12   | 1                     | 30   | D    | 48   | V    |
| 13   | m                     | 31   | E    | 49   | W    |
| 14   | n                     | 32   | F    | 50   | X    |
| 15   | o                     | 33   | G    | 51   | Y    |
| 16   | р                     | 34   | Н    | 52   | Z    |
| 17   | q                     | 35   | I    |      |      |
| 18   | r                     | 36   | J    |      |      |

### APPROVAL

| DRAWN BY    | XLiu, February 20, 2020   |
|-------------|---------------------------|
| APPROVED BY | JIvens, February 20, 2020 |
| REVISION    | A, Initial Release        |

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