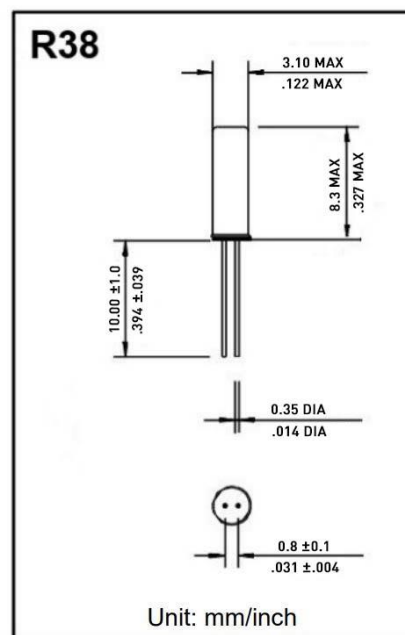


- ELECTRICAL SPECIFICATIONS**

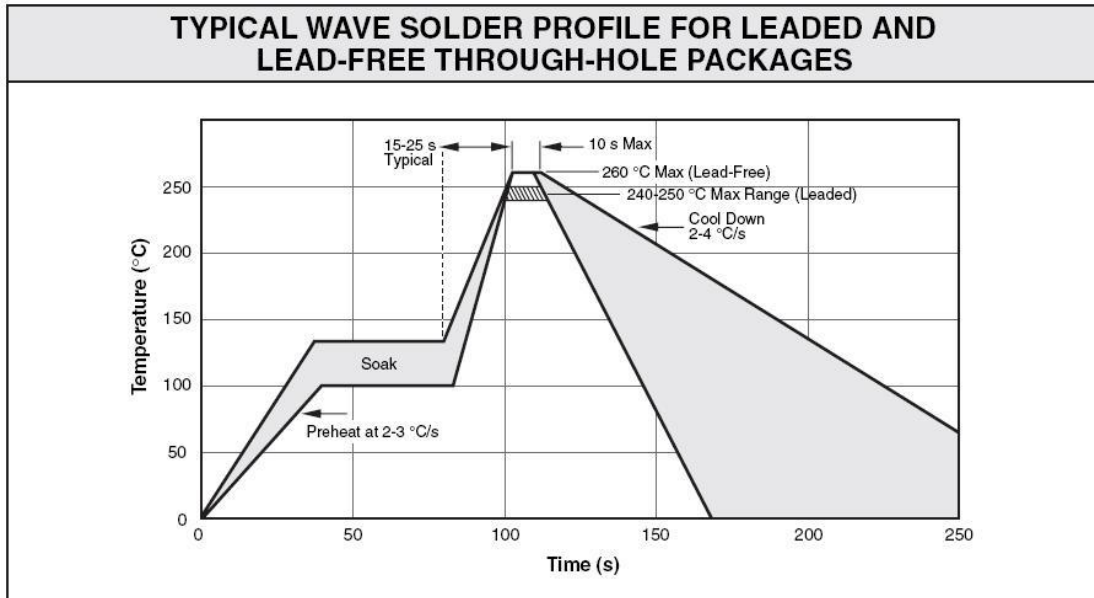
| PARAMETER                    | VALUE                              |
|------------------------------|------------------------------------|
| NOMINAL FREQUENCY            | 32.768 kHz                         |
| FREQUENCY TOLERANCE AT 25°C  | ±5 ppm max                         |
| TURNOVER TEMPERATURE         | 25°C ± 5°C                         |
| PARABOLIC CURVATURE CONSTANT | -0.034 ±0.006 ppm/Δ°C <sup>2</sup> |
| LOAD CAPACITANCE             | 12.5 pF                            |
| EQUIVALENT SERIES RESISTANCE | 30 kΩ max                          |
| DRIVE LEVEL                  | 1 μW max                           |
| MOTIONAL CAPACITANCE         | 3.5 fF typ                         |
| SHUNT CAPACITANCE            | 1.6 pF typ                         |
| CAPACITANCE RATIO            | 460 typ                            |
| AGING                        | ±3 ppm first year max              |
| QUALITY FACTOR               | 60,000 typ                         |
| INSULATION RESISTANCE        | 500 MΩ min                         |
| OPERATING TEMPERATURE RANGE  | -40°C to +85°C                     |
| STORAGE TEMPERATURE RANGE    | -40°C to +85°C                     |

- MECHANICAL SPECIFICATION**



NOTE: Through hole device, can withstand 245°C soldering by terminals only

● WAVE SOLDER PROFILE



| Wave Solder profile                                           |                                      |                                      |
|---------------------------------------------------------------|--------------------------------------|--------------------------------------|
| Profile Feature                                               | SnPb eutectic                        | Pb-Free                              |
| Average ramp-up rate                                          | ~200°C/second                        | ~200°C/second                        |
| Heating Rate during preheat                                   | typical 1-2°/second<br>max 4°/second | typical 1-2°/second<br>max 4°/second |
| Final preheat temperature, T <sub>S</sub>                     | ~130°C                               | ~130°C                               |
| Peak temperature, T <sub>P</sub>                              | 235°C                                | 260°C                                |
| Time within +0°C / -5°C of actual temperature, t <sub>P</sub> | 10 seconds                           | 10 seconds                           |
| Ramp-down rate                                                | 5°C/second max.                      | 5°C/second max.                      |

NOTE: This document should serve as recommendation only. Other parameters may also affect soldering, this profile does not guarantee absolute success. Soldering profile should be determined by the equipment manufacturer and customers' process engineer.

● ENVIRONMENTAL

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



● APPROVAL

|              |                                                                                     |
|--------------|-------------------------------------------------------------------------------------|
| DRAWN BY:    | KJackson, March 31, 2016                                                            |
| APPROVED BY: | KJackson, March 31, 2016                                                            |
| REVISION:    | A, Initial Release<br>B, Updated to current spec levels by X Liu, November 20, 2019 |

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