

#### SURFACE MOUNT TUNING FORK CRYSTAL

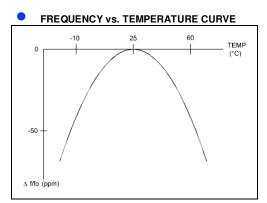
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### RSM200S-32.768-6-TR-15PPM

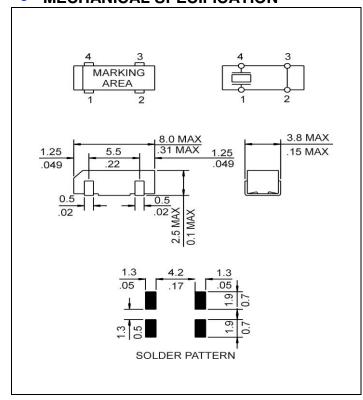
#### **SPECIFICATIONS**

| PARAMETER                    | VALUE                               |
|------------------------------|-------------------------------------|
| NOMINAL FREQUENCY            | 32.768 kHz                          |
| FREQUENCY TOLERANCE AT 25°C  | ±15 ppm max                         |
| TURNOVER TEMPERATURE         | +25°C ±5°C                          |
| PARABOLIC CURVATURE CONSTANT | (-0.034 ±0.006) ppm/°C <sup>2</sup> |
| OPERATING TEMPERATURE RANGE  | -40°C to +85°C                      |
| STORAGE TEMPERATURE RANGE    | -55°C to +125°C                     |
| AGING                        | ±3 ppm first year max               |
| LOAD CAPACITANCE             | 6 pF                                |
| EQUIVALENT SERIES RESISTANCE | 50 kΩ max                           |
| SHUNT CAPACITANCE            | 1.35 pF typ, 2 pF max               |
| MOTIONAL CAPACITANCE         | 3 fF typ                            |
| CAPACITANCE RATIO            | 450 typ                             |
| DRIVE LEVEL                  | 1 μW max                            |
| INSULATION RESISTANCE        | 500 MΩ min                          |
| REFLOW CONDITIONS            | 260°C for 10 sec max                |

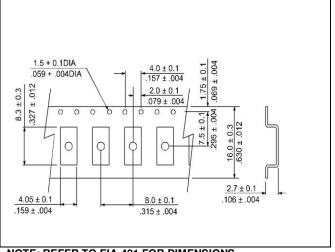




### **MECHANICAL SPECIFICATION**



## **CARRIER TAPE DIMENSIONS**



NOTE: REFER TO EIA-481 FOR DIMENSIONS

### **PACKAGING**

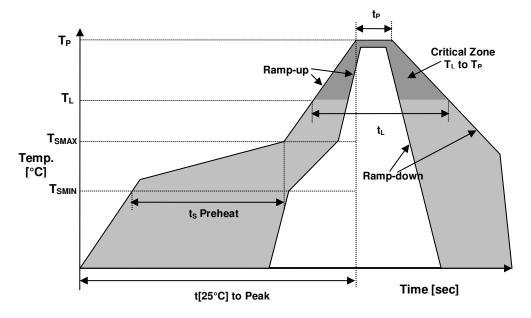
178 mm REEL DIAMETER 16 mm TAPE WIDTH, 8 mm PITCH QUANTITY: 3000 PIECES PER REEL

IN ACCORDANCE WITH EIA-481



## RSM200S-32.768-6-TR-15PPM

## 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 s   |
| Temperature                                    | $T_L$             | 217°C      |
| Peak Temperature                               | $T_P$             | 260°C      |
| Ramp-up rate                                   | $R_{UP}$          | 3°C/s max. |
| Ramp-down rate                                 | $R_{DOWN}$        | 6°C/s max. |
| Time within 5°C of Peak Temperature            | t <sub>P</sub>    | 10 s       |
| Time t[25°C] to Peak Temperature               | t[25°C] to Peak   | 480 s      |
| Time   | t∟                | 60-150 s   |

### ENVIRONMENTAL

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





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# RSM200S-32.768-6-TR-15PPM

#### MARKING

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x – Internal Production ID codem – Month codev – Year code

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|---|---|---|-----|------|
|   |   |   |     |      |

| MONTH CODE |      |  |
|------------|------|--|
| MONTH      | CODE |  |
| JANUARY    | Α    |  |
| FEBRUARY   | В    |  |
| MARCH      | С    |  |
| APRIL      | D    |  |
| MAY        | E    |  |
| JUNE       | F    |  |
| JULY       | G    |  |
| AUGUST     | Н    |  |
| SEPTEMBER  | J    |  |
| OCTOBER    | K    |  |
| NOVEMBER   | L    |  |
| DECEMBER   | М    |  |

| 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    |

### APPROVAL

| Drawn By:    | XLiu, December 20, 2019   |
|--------------|---------------------------|
| Approved By: | JIvens, December 20, 2019 |
| Revision:    | A. Initial Release        |

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