

# 32.768kHz SMD LOW PROFILE CRYSTAL

ABS13

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RoHS/RoHS II compliant.  
Pb in high temperature solder

6.9 x 1.4 x 1.3 mm

Moisture Sensitivity Level: Level 1

(exempt 7(a) per RoHS II 2011/65/EU Annex)

## FEATURES:

- Low frequency
- Plastic package with embedded heat resistant crystal in cylinder package
- Extended temperature -40°C to +85°C for industrial applications
- Suitable to RoHS compliant reflow

## APPLICATIONS:

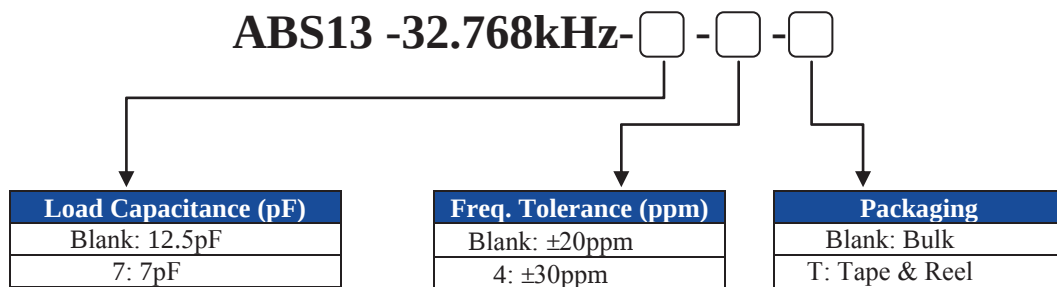
- Commercial & Industrial applications
- Wireless communications
- PDA and Palm Pilots

## STANDARD SPECIFICATIONS:

| Parameters                        | Minimum | Typical | Maximum | Units              | Notes                   |
|-----------------------------------|---------|---------|---------|--------------------|-------------------------|
| Nominal Frequency                 | -----   | 32.768  | -----   | kHz                |                         |
| Operating Temperature             | -40     | -----   | +85     | °C                 |                         |
| Turnover Temperature              | +20     | +25     | +30     | °C                 |                         |
| Storage Temperature               | -55     | -----   | +125    | °C                 |                         |
| Frequency Tolerance @+25°C        | -20     | -----   | +20     | ppm                | See options             |
| Frequency Coefficient (β)         | -0.040  | -0.034  | -0.028  | ppm/T <sup>2</sup> |                         |
| Equivalent series resistance (R1) | -----   | -----   | 65      | kΩ                 |                         |
| Load capacitance (CL)             | -----   | 12.5    | -----   | pF                 | See options             |
| Drive Level                       | -----   | -----   | 1       | μW                 |                         |
| Aging                             | -3      | -----   | +3      | ppm                | @25°C±3°C<br>First year |
| Insulation Resistance             | 500     | -----   | -----   | MΩ                 | @ 100Vdc ± 15V          |

## OPTIONS AND PART IDENTIFICATION:

(Left blank if standard)



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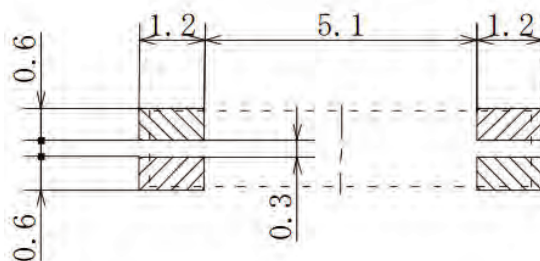
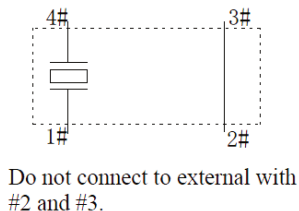
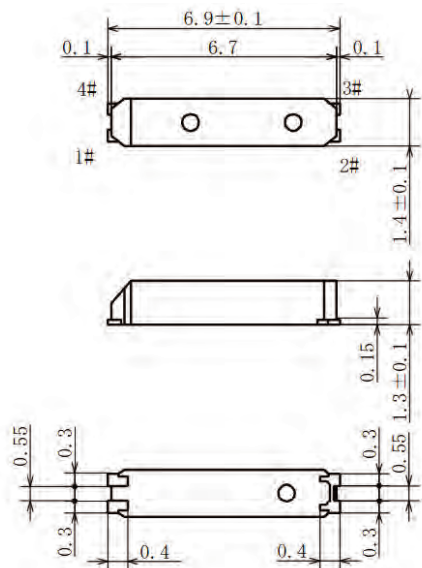
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## OUTLINE DRAWING:

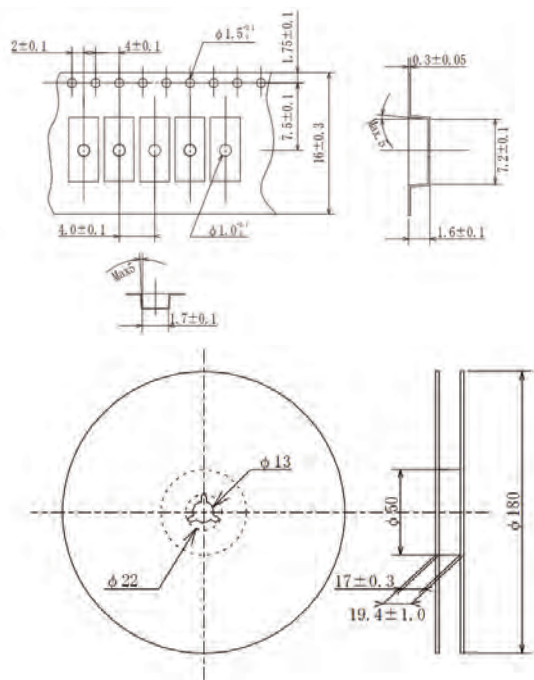
### Recommended Land Pattern



Dimensions: mm

## TAPE & REEL: T = Tape and reel 3,000pcs/reel

## REFLOW PROFILE



Dimensions: mm

