

32.768kHz SMD LOW PROFILE CRYSTAL

ABS07

3.2 x 1.5 x 0.9 mm

ABS07

Moisture Sensitivity Level (MSL) – This product is
Hermetically Sealed and not Moisture Sensitive -
MSL = N/A: Not Applicable



RoHS/RoHS II

FEATURES:

- Low frequency in small size SMD
- 0.9mm height ideal for high density circuit boards
- Seam sealed ceramic package offers excellent environmental & heat resistance
- Extended temperature -55°C to +125°C for industrial applications

APPLICATIONS:

- Wide range in communication & measuring equipment
- Commercial & Industrial applications
- Wireless communications
- PDA and Smartphone

STANDARD SPECIFICATIONS

| Parameters | Minimum | Typical | Maximum | Units | Notes |
|-----------------------------------|-----------------------------|-----------|---------|--------------------|----------------|
| Frequency | 32.768 | | | kHz | |
| Operation Mode | Flexural Mode (Tuning Fork) | | | | |
| Operating Temperature | -40 | | +85 | °C | See options |
| Storage Temperature | -55 | | +125 | °C | |
| Frequency Tolerance @+25°C | -20 | | +20 | ppm | See options |
| Temperature Coefficient: | -0.040 | -0.036 | | ppm/T ² | |
| Turn-over temperature: | +20 | +25 | +30 | °C | |
| Equivalent series resistance (R1) | | | 70 | kΩ | |
| Shunt capacitance (C0) | | 0.9 ~ 1.2 | | pF | |
| Load capacitance (CL) | 12.5 | | | pF | See options |
| Drive Level | | 0.1 | 0.5 | μW | |
| Q value | 10000 | 30000 | | | |
| Aging@25°C±3°C | -3 | | 3 | ppm | First year |
| Insulation Resistance | 500 | | | MΩ | @ 100Vdc ± 15V |

OPTIONS AND PART IDENTIFICATION (left blank if standard)

ABS07□ - 32.768 kHz - □ - □ - □ - □

| Height |
|-------------------|
| Blank: 0.9mm max. |
| 1: 0.65mm max. |

| Load Capacitance |
|------------------|
| Blank: 12.5pF |
| 9: 9pF |
| 7: 7pF |
| 6: 6pF |
| 4P*: 4pF |

| Operating Temp. Range |
|-----------------------|
| Blank: -40 ~ +85°C |
| H: -40 ~ +125°C |
| W: -55 ~ +125°C |

| Freq. Tolerance |
|-----------------|
| Blank: ±20ppm |
| 1: ±10ppm |
| 4: ±30ppm |

| Packaging |
|----------------------------------|
| Blank: Bulk |
| T: Tape & Reel (3000pcs/reel) |

Note: *Option "4P" is only available with standard height (0.9mm max).

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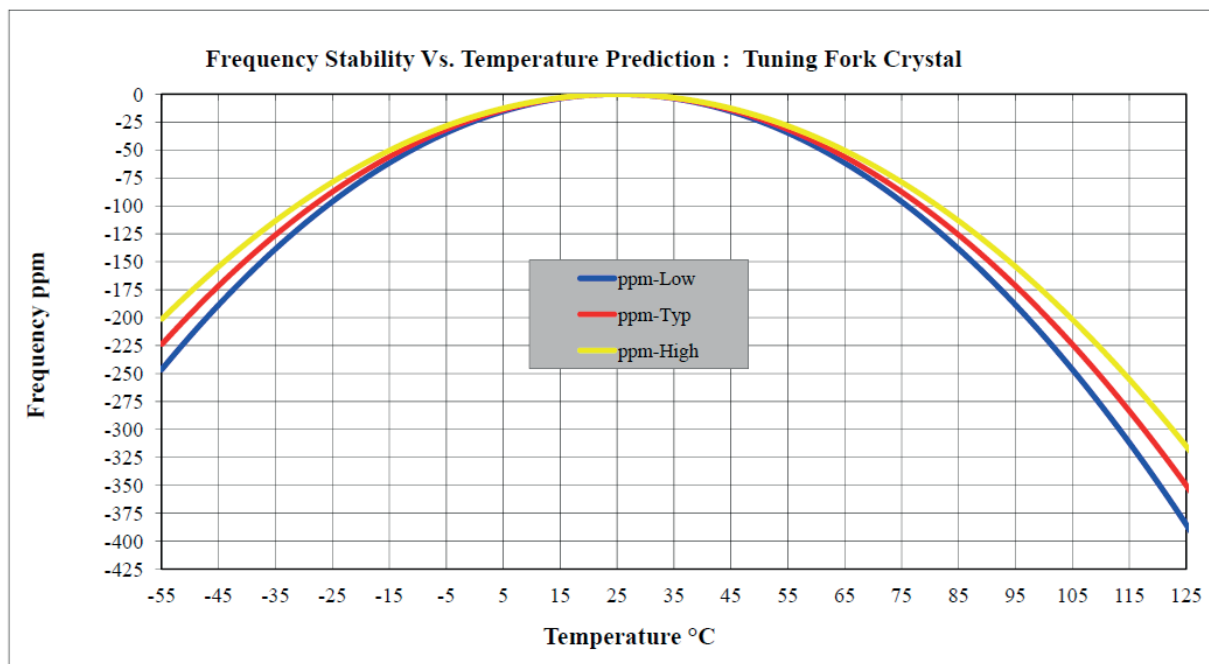


RoHS/RoHS II

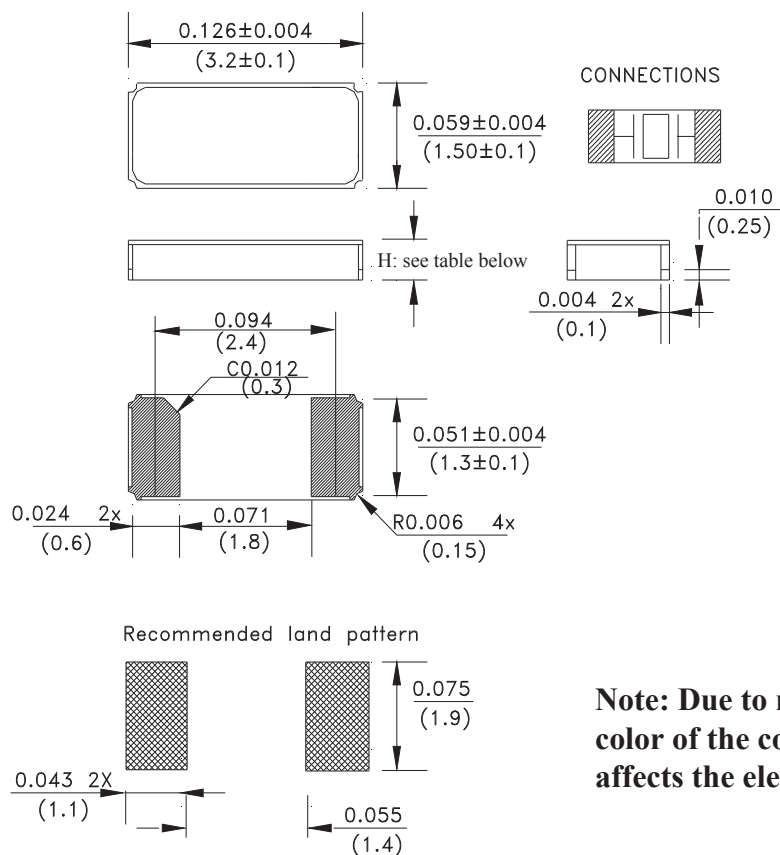


3.2 x 1.5 x 0.9 mm

FREQUENCY VS. TEMPERATURE CHARACTERISTICS



OUTLINE DIMENSIONS:



| Part Number | Height (H) |
|-------------|--------------|
| ABS07 | 0.9 mm max. |
| ABS071 | 0.65 mm max. |

Note: Due to material availability, the outline and finish color of the component may vary. This variation in no way affects the electrical performance of the product.

Dimensions: inches (mm)

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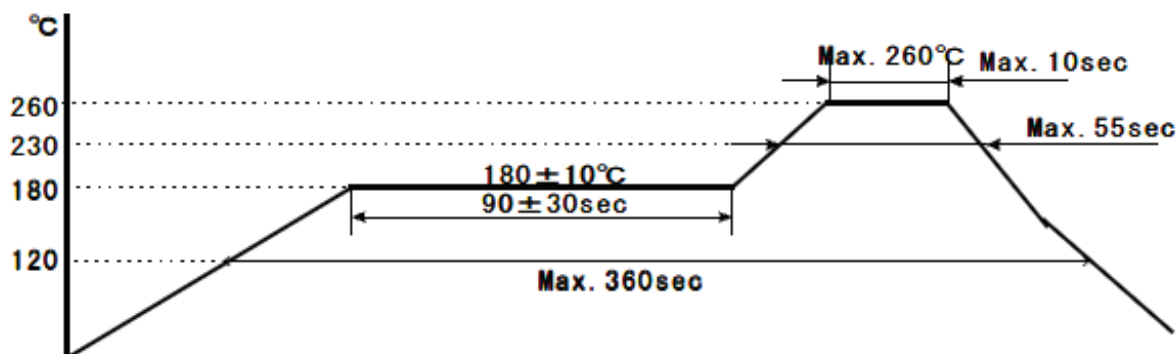


RoHS/RoHS II

ABS07

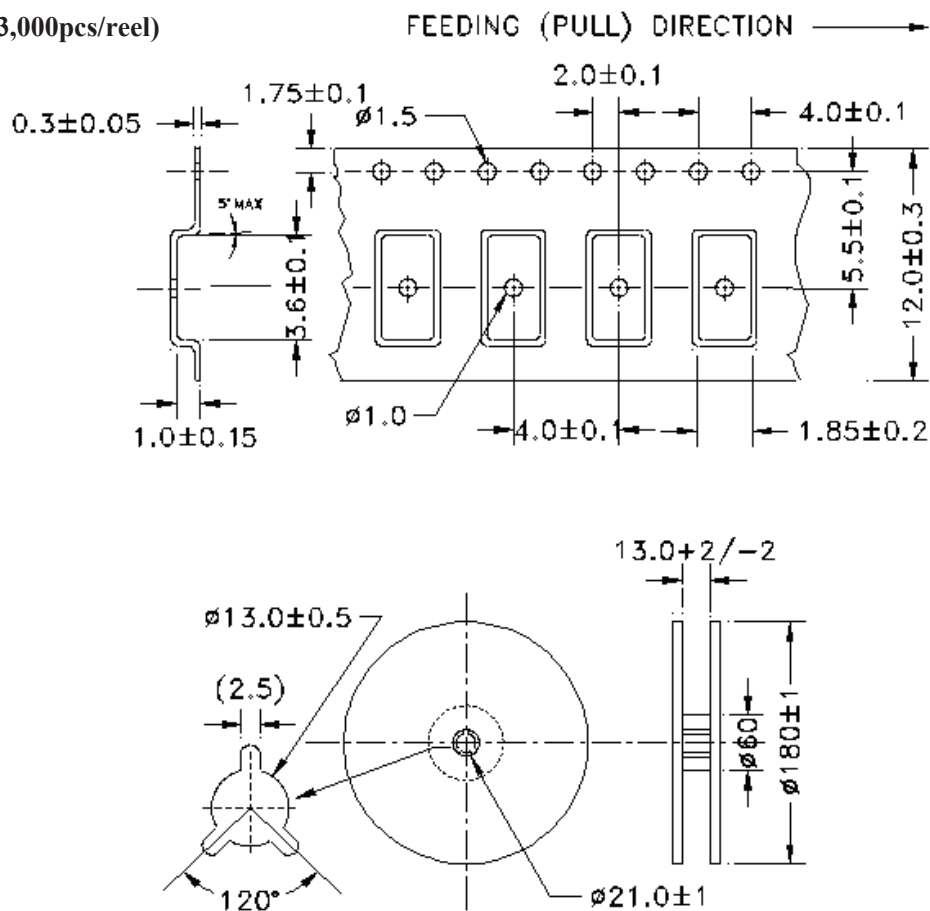
3.2 x 1.5 x 0.9 mm

REFLOW PROFILE



TAPE & REEL

T=Tape and reel (3,000pcs/reel)



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