

Features

Frequency range : 32.768 kHz
 SMD : Ceramic package
 External dimensions (mm)
 L : 3.2 x W : 1.5 x H : 0.75
 RoHS compliant & Pb free

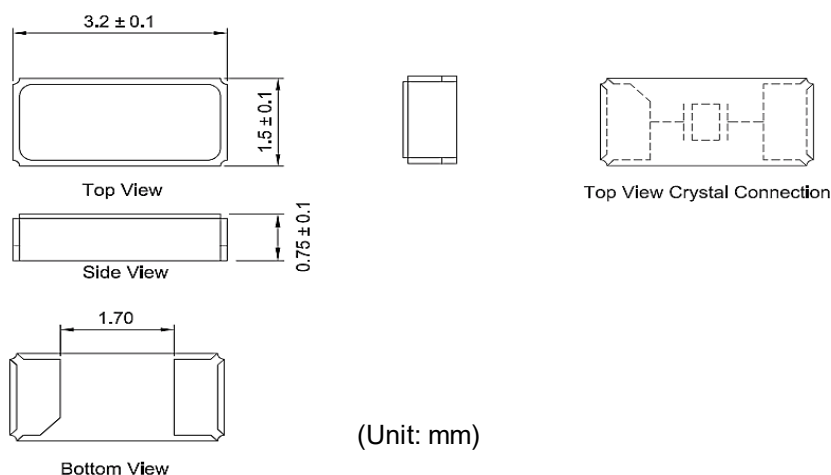
Applications

Small mobile devices
 Communication devices
 Consumer products
 Commercial & industrial applications

Electrical Characteristics

| Item | Symbol | 9HT10 | Conditions |
|-----------------------------|----------------|--------------------------------------|-------------------------------|
| Nominal Frequency | f_0 | 32.768 kHz | |
| Frequency Tolerance | $\Delta f/f_0$ | $\pm 10\text{ppm}, \pm 20\text{ppm}$ | at 25°C |
| Load Capacitance | C_L | 6pF, 7pF, 9pF, 12.5pF | |
| Operating Temperature Range | T_{OTR} | -40°C ~ +85°C | |
| | | -40°C ~ +125°C | |
| Storage Temperature Range | T_{STR} | -55°C ~ +125°C | |
| Turnover Temperature | T_M | 25°C \pm 5°C | |
| Temperature Coefficient | β | -0.04 ppm/°C ² Max. | |
| Motional Capacitance | C_1 | 3.1 fF Typ. | |
| Motional Resistance (ESR) | R_1 | 70 kΩ Max. | at 25°C |
| Drive Level | D_L | 0.1μW Typ. / 1.0μW Max. | |
| Aging | $\Delta f/f_0$ | ± 3 ppm Max. | at 25°C \pm 3°C, first year |
| Shunt Capacitance | C_0 | 1.0 pF Typ. | |

Dimensions

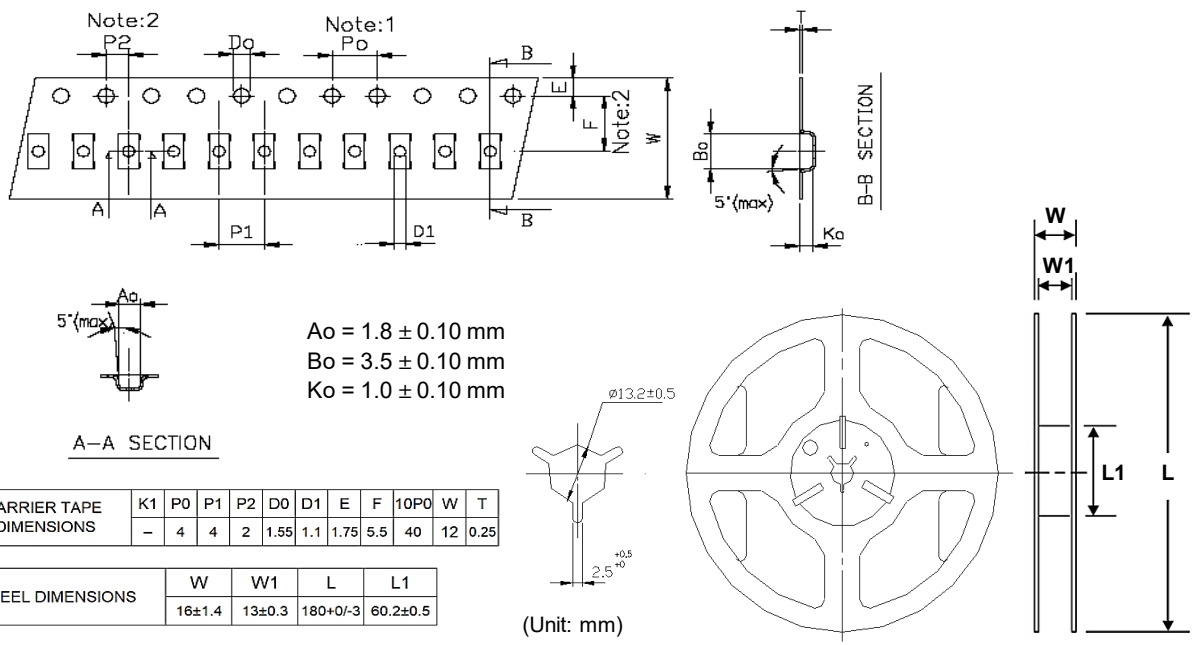


Ordering Information

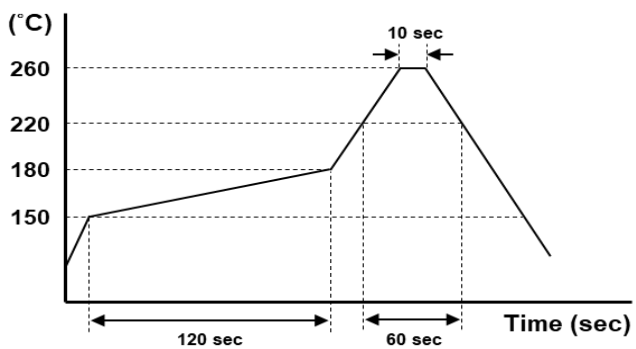
9HT10 - 32.768K D Z F - T

| | |
|--------------------------------------|-------------------------|
| Frequency Tolerance (at 25°C) | Package Method |
| D ± 20 ppm | T Tape & Reel |
| E ± 10 ppm | |
| Operating Temperature Range | Load Capacitance |
| Z -40°C ~ +85°C | B 6 pF |
| W -40°C ~ +125°C | Y 7 pF |
| | C 9 pF |
| | F 12.5 pF |

Packing



Reflow Profile



Total time : Max. 200 sec.
Solder melting point : 220°C