

Features

Frequency range : 32.768 kHz
 Low ESR
 SMD : Ceramic package
 External dimensions (mm)
 L : 2.0 x W : 1.2 x H : 0.6
 RoHS compliant & Pb free

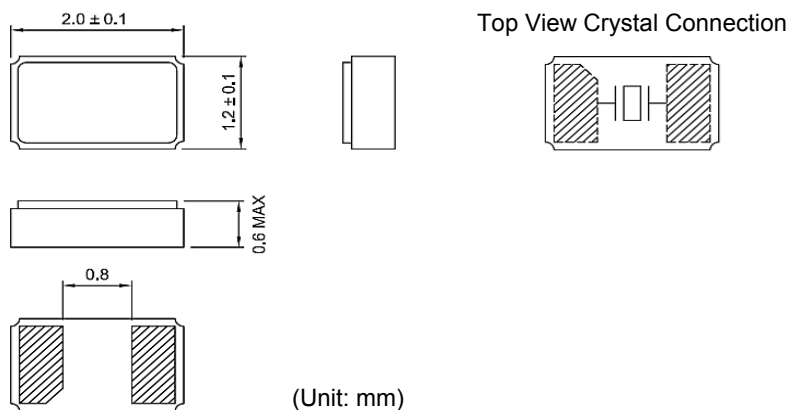
Applications

Power sensitive designs
 Small mobile devices
 Communication devices
 Consumer products
 Commercial & industrial applications

Electrical Characteristics

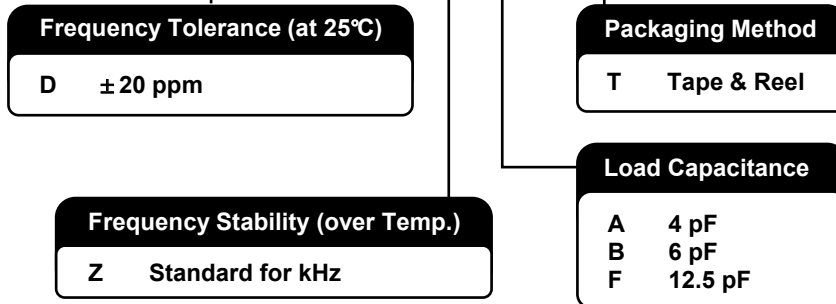
| Item | Symbol | 9HT11L | Conditions |
|-----------------------------|----------------|--------------------------------|-------------------------------|
| Nominal Frequency | f_0 | 32.768 kHz | |
| Frequency Tolerance | $\Delta f/f_0$ | ± 20 ppm | at 25°C |
| Load Capacitance | C_L | 4pF, 12.5pF | |
| Operating Temperature Range | T_{OTR} | -40°C ~ +85°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 | 9.5 fF Typ. | |
| Motional Resistance (ESR) | R_1 | 70 kΩ Max. | at 25°C |
| Drive Level | D_L | 0.1μW Typ. / 0.5μW Max. | |
| Aging | $\Delta f/f_0$ | ± 3 ppm Max. | at 25°C \pm 3°C, first year |
| Shunt Capacitance | C_0 | 1.9 pF Typ. | |

Dimensions

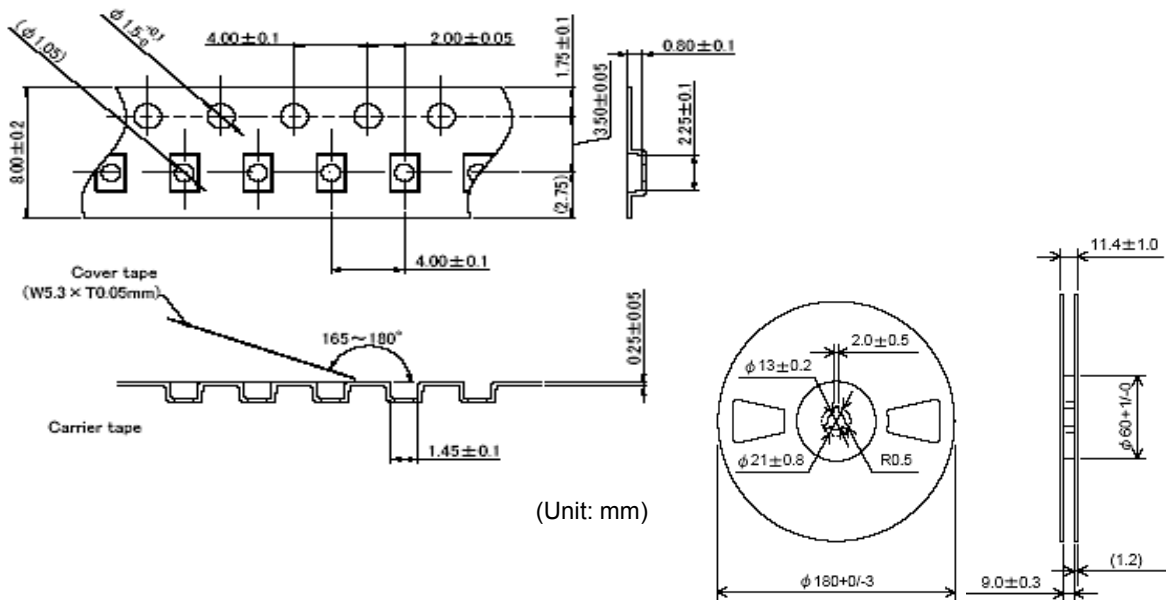


Ordering Information

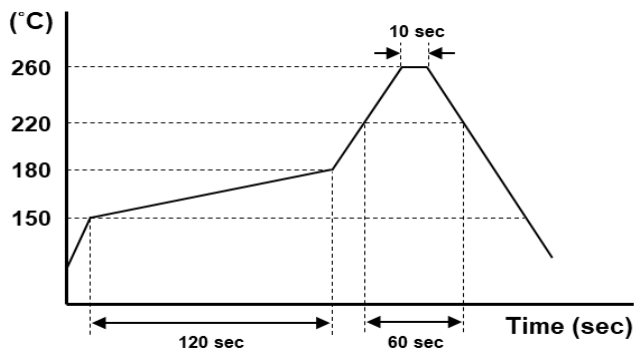
9HT11L - 32.768K D Z F - T



Packing



Reflow Profile



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