

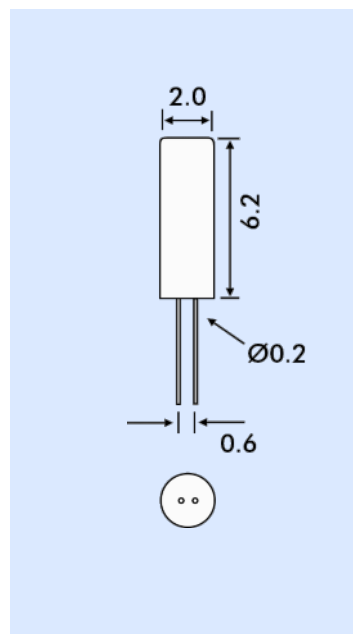
- An industry-standard source of 32.768kHz clock signals
- Fully RoHs compliant
- Excellent shock resistance and environmental capability
- A high build quality component at low cost



SPECIFICATION

Frequency:	32.7680kHz
Calibration Tolerance at 25°C:	from ±5ppm to ±50ppm
Temperature Coefficient:	Inverse Parabolic -0.035 ppm/°C ²
Peak Temperature:	25°C ±5°C
Operating Temperature Range:	-20 to +70°C
Storage Temperature:	-55~+105°C
Effective Series Resistance:	45kOhms max.
Shunt Capacitance (C0):	0.8pF typical
Motional Capacitance:	4.0fF max.
Load Capacitance (CL):	6pF, 9pF or 12.5pF
Ageing:	<±5ppm per year at +25°C
Maximum Drive level:	1.0 μW max.
Insulation Resistance:	100MΩ min.
Shock Resistance:	±5ppm max. (Drop test 3 times onto a hard board from 75cm)

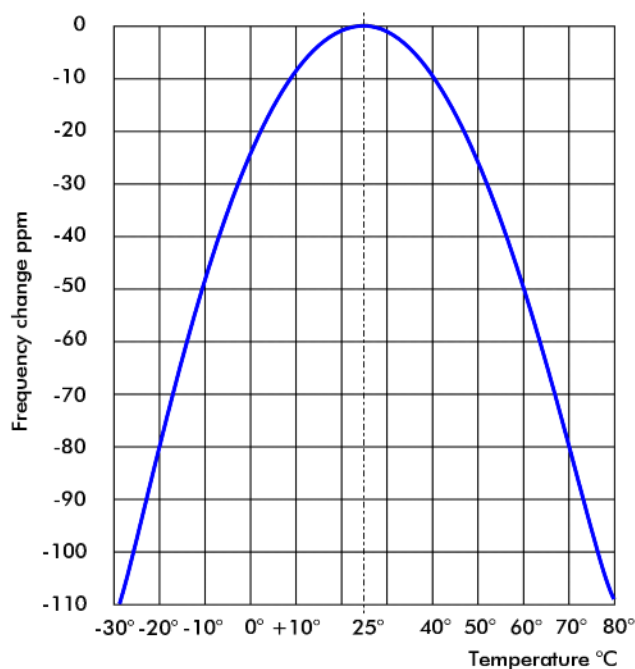
OUTLINE & DIMENSIONS



STOCK NUMBERS/SPECIFICATIONS

Stock Number	Frequency	Calibration	CL (pF)
MH32768C	32.768kHz	±20ppm	12.5
MH32768L	32.768kHz	±20ppm	6.0
XT009012	32.768kHz	±20ppm	9.0

Frequency Change vs. Temperature X-Cut Crystal



$$\text{Function} = \Delta f / f_0 = -0.035(T - T_0)^2 \pm 10\%$$