

### FEATURES

- Standard 6.0x3.5mm Surface Mount Footprint
- Stable Frequency Over Temperature and Drive Level
- Frequency Range 10 – 50 MHz
- Frequency Tolerance,  $\pm 30$  ppm Standard ( $\pm 10$  ppm and  $\pm 20$  ppm available)
- Frequency Stability,  $\pm 50$  ppm Standard ( $\pm 10, \pm 20, \pm 30$  and  $\pm 40$  ppm available)
- Operating Temperature to  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$
- Tape & Reel Packaging, EIA-481-2 Compliant
- **RoHS/Green Compliant**

### DESCRIPTION

The Model 406 is a ceramic packaged Crystal offering reduced size, ideal for high-density circuit board applications. The Model 406 offers reliable precision and excellent shock performance in wireless telecommunication devices.



### ORDERING INFORMATION



Example Part Numbers:  
406C35A14M31818  
406I35A32M00000

Custom performance characteristics are available upon request. Use form C052 to detail non-standard parameters.  
Contact your local CTS Representative or CTS Customer Service for assistance.

Downloaded from [Elcodis.com](http://Elcodis.com) electronic components distributor



## TAPE AND REEL INFORMATION



Device quantity is 1,000 pieces per 180mm reel.

## ENVIRONMENTAL SPECIFICATIONS

Temperature Cycle:	400 cycles from $-55^{\circ}\text{C}$ to $+125^{\circ}\text{C}$ , 10 minute dwell at each temperature, 1 minute transfer time between temperatures.
Mechanical Shock:	1,500g's, 0.5mS duration, $\frac{1}{2}$ sinewave, 3 shocks each direction along 3 mutually perpendicular planes (18 total shocks).
Sinusoidal Vibration:	0.06 inches double amplitude, 10 to 55 Hz and 20g's, 55 to 2,000 Hz, 3 cycles each in 3 mutually perpendicular planes (9 times total).
Gross Leak:	No leak shall appear while immersed in an FC40 or equivalent liquid at $+125^{\circ}\text{C}$ for 20 seconds.
Fine Leak:	Mass spectrometer leak rates less than $2 \times 10^{-8}$ ATM cc/sec air equivalent.
Resistance to Solder Heat:	Product must survive 3 reflows of $+260^{\circ}\text{C}$ peak, 10 seconds maximum.
High Temperature Operating Bias:	2,000 hours at $+125^{\circ}\text{C}$ , disregarding frequency shift.
Frequency Aging:	1,000 hours at $+85^{\circ}\text{C}$ , maximum $\pm 5$ ppm shift.
Insulation Resistance:	500M Ohms @ $100\text{V}_{\text{DC}} \pm 15\text{V}_{\text{DC}}$ .
Moisture Sensitivity Level:	Level 1 per JEDEC J-STD-020.

## QUALITY AND RELIABILITY

Quality systems meet or exceed the requirements of ISO 9000:2000 standards.