

TEMPERATURE SENSING CRYSTAL

HTS-206

- Crystal used to sense the change in temperature.
- 2mm in diameter and 6mm in length.
- Good linearity frequency and temperature.
- Low frequency (40KHz) enables low current consumption.
- Wide temperature range (-40 to +85°C).
- Suitable for DTCXO and temperature equipment.



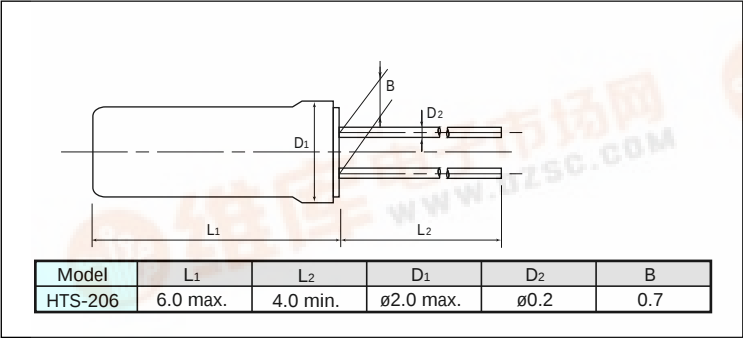
Actual size

Specifications (characteristics)

| Item                           |                       | Symbol           | Specifications                                 | Remarks                                |
|--------------------------------|-----------------------|------------------|------------------------------------------------|----------------------------------------|
| Nominal frequency              |                       | f <sub>0</sub>   | 40kHz                                          |                                        |
| Temperature range              | Storage temperature   | T <sub>STG</sub> | -55°C to +125°C                                |                                        |
|                                | Operating temperature | T <sub>OPR</sub> | -40°C to +85°C                                 |                                        |
| Drive level                    | Maximum               | GL               | 1.0 μ W max.                                   |                                        |
|                                | Recommended           | DL               | 0.1 μ W typ.                                   |                                        |
| Frequency tolerance (standard) |                       | Δf/f             | ±2%                                            | Ta=25°C, DL=0.1μW                      |
| Temperature coefficient        | 1st                   | α                | -29.6 x 10 <sup>-6</sup> /°C [±2%]             |                                        |
|                                | 2nd                   | β                | -6.4 x 10 <sup>-8</sup> /°C <sup>2</sup> [±8%] |                                        |
|                                | 3rd                   | γ                | -1.5 x 10 <sup>-10</sup> /°C <sup>3</sup> max. |                                        |
| Series resistance              |                       | R <sub>1</sub>   | 30 KΩ max.                                     | Ta=25°C, DL=1.0μW                      |
| Motion capacitance             |                       | C <sub>1</sub>   | 2.0 fF typ.                                    |                                        |
| Shunt capacitance              |                       | C <sub>0</sub>   | 0.9 pF typ.                                    |                                        |
| Insulation resistance          |                       | IR               | 500 MΩ min.                                    |                                        |
| Aging                          |                       | fa               | ±3ppm/year max.                                | Ta=25°C ±3°C                           |
| Shock resistance               |                       | S.R.             | ±3ppm max.                                     | Three drops on a hard board from 50 cm |

External dimensions

(Unit: mm)



Temperature characteristic

