

## Features

Frequency range : 16MHz to 66MHz  
 Ceramic SMD package  
 Seam sealing  
 External dimensions (mm)  
 L : 2.0 x W : 1.6 x H : 0.5  
 RoHS compliant & Pb free

## Applications

Bluetooth, Wireless LAN  
 Microprocessor  
 Mobile phone, Computer, Modem  
 Audio, Video  
 Consumer products

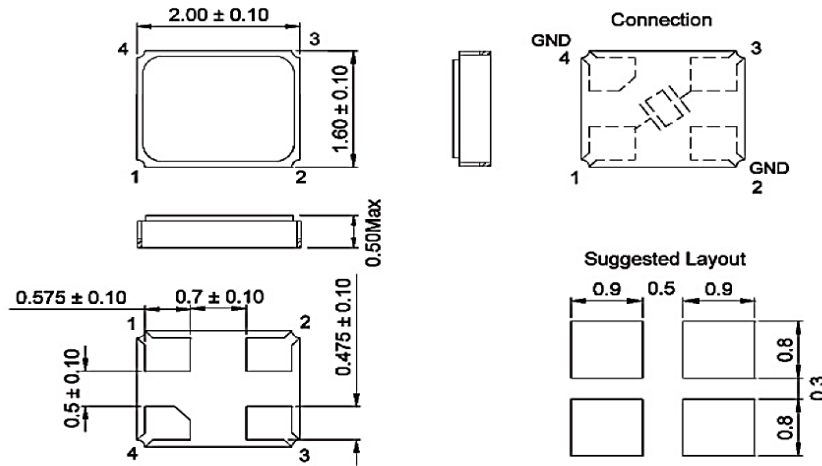
## Electrical Characteristics

| Item                                                                 |             | 8Y                                                           | Conditions                                 |
|----------------------------------------------------------------------|-------------|--------------------------------------------------------------|--------------------------------------------|
| Frequency Range                                                      | $F_0$       | 16MHz ~ 66MHz                                                |                                            |
| Frequency Tolerance                                                  | $F_{tol}$   | $\pm 30\text{ppm}$ , $\pm 20\text{ppm}$ , $\pm 10\text{ppm}$ | at 25°C                                    |
| Frequency Stability over Operating Temperature Range (refer to 25°C) | $F_{stab}$  | $\pm 30\text{ ppm}$                                          | -20°C ~ +70°C                              |
|                                                                      |             | $\pm 20\text{ ppm}$                                          |                                            |
|                                                                      |             | $\pm 10\text{ ppm}$                                          |                                            |
|                                                                      |             | $\pm 10\text{ ppm}$                                          | -30°C ~ +85°C                              |
|                                                                      |             | $\pm 30\text{ ppm}$                                          | -40°C ~ +85°C                              |
|                                                                      |             | $\pm 20\text{ ppm}$                                          |                                            |
|                                                                      |             | $\pm 60\text{ ppm}$                                          | -40°C ~ +125°C                             |
| Operating Temperature Range                                          | $T_{OTR}$   | -20°C ~ +70°C                                                |                                            |
|                                                                      |             | -40°C ~ +85°C                                                |                                            |
|                                                                      |             | -40°C ~ +125°C                                               |                                            |
| Shunt Capacitance                                                    | $C_0$       | 3pF Max.                                                     |                                            |
| Drive Level                                                          | $D_L$       | 1 ~ 200 $\mu$ W (50 $\mu$ W Typ.)                            |                                            |
| Load Capacitance                                                     | $C_L$       | 6pF, 8pF, 10pF, 12pF                                         |                                            |
| Aging                                                                | $F_{aging}$ | $\pm 3\text{ ppm Max.}$                                      | at 25°C $\pm 3^\circ\text{C}$ , first year |
| Storage Temperature Range                                            | $T_{STR}$   | -55°C ~ +125°C                                               |                                            |

## Motional Resistance (ESR)

| Fundamental   |                   |
|---------------|-------------------|
| 16 ~ 19.2 MHz | 200 $\Omega$ Max. |
| 19.2 ~ 30 MHz | 100 $\Omega$ Max. |
| 30 ~ 66 MHz   | 80 $\Omega$ Max.  |

### Dimensions



### Ordering Information

**8Y - 24.000M A H E - T**

#### Frequency in Hz

Please contact us for available frequencies

#### Packaging Method

T Tape & Reel

#### Frequency Tolerance (at 25°C)

|   |              |
|---|--------------|
| A | $\pm 30$ ppm |
| D | $\pm 20$ ppm |
| E | $\pm 10$ ppm |

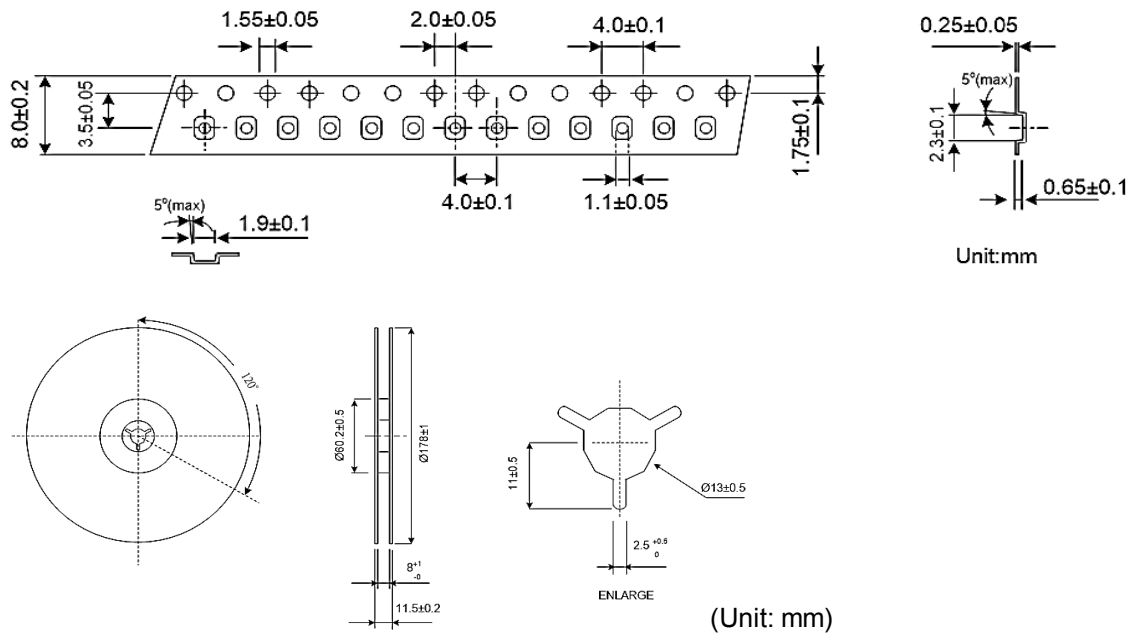
#### Load Capacitance

|   |       |
|---|-------|
| B | 6 pF  |
| V | 8 pF  |
| Q | 10 pF |
| E | 12 pF |

#### Frequency Stability (over Temp.)

|   |                                 |
|---|---------------------------------|
| A | $\pm 30$ ppm ( -20°C ~ +70°C )  |
| D | $\pm 20$ ppm ( -20°C ~ +70°C )  |
| E | $\pm 10$ ppm ( -20°C ~ +70°C )  |
| T | $\pm 10$ ppm ( -30°C ~ +85°C )  |
| H | $\pm 30$ ppm ( -40°C ~ +85°C )  |
| I | $\pm 20$ ppm ( -40°C ~ +85°C )  |
| K | $\pm 60$ ppm ( -40°C ~ +125°C ) |

## Packing



## Reflow Profile

Solder melting point :  $220^\circ\text{C} \pm 10^\circ\text{C}$ , 60 sec. Min.

Peak temperature :  $260^\circ\text{C} \pm 10^\circ\text{C}$ , 10 sec. Min.

