

Features

Frequency range : 12MHz to 66MHz
 Ceramic SMD package
 Seam sealing
 External dimensions (mm)
 L : 2.5 x W : 2.0 x H : 0.55
 RoHS compliant & Pb free

Applications

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

Electrical Characteristics

| Item | | 8Z | Conditions |
|--|-------------|--|----------------|
| Frequency Range | F_0 | 12MHz ~ 66MHz | |
| Frequency Tolerance | F_{tol} | ±30ppm, ±20ppm, ±10ppm | at 25°C |
| Frequency Stability over Operating Temperature Range (refer to 25°C) | F_{stab} | ±30 ppm | -20°C ~ +70°C |
| | | ±20 ppm | |
| | | ±10 ppm | |
| | | ±10 ppm | -30°C ~ +85°C |
| | | ±30 ppm | -40°C ~ +85°C |
| | | ±20 ppm | |
| | | ±60 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 ~ 200µW (100µW Typ.) | |
| Load Capacitance | C_L | 6pF, 8pF, 10pF 12pF, 16pF, 18pF, 20pF | |
| Aging (at 25°C ± 3°C, first year) | F_{aging} | ±3ppm Max. | Note [1] |
| Storage Temperature Range | T_{STR} | -55°C ~ +125°C | |

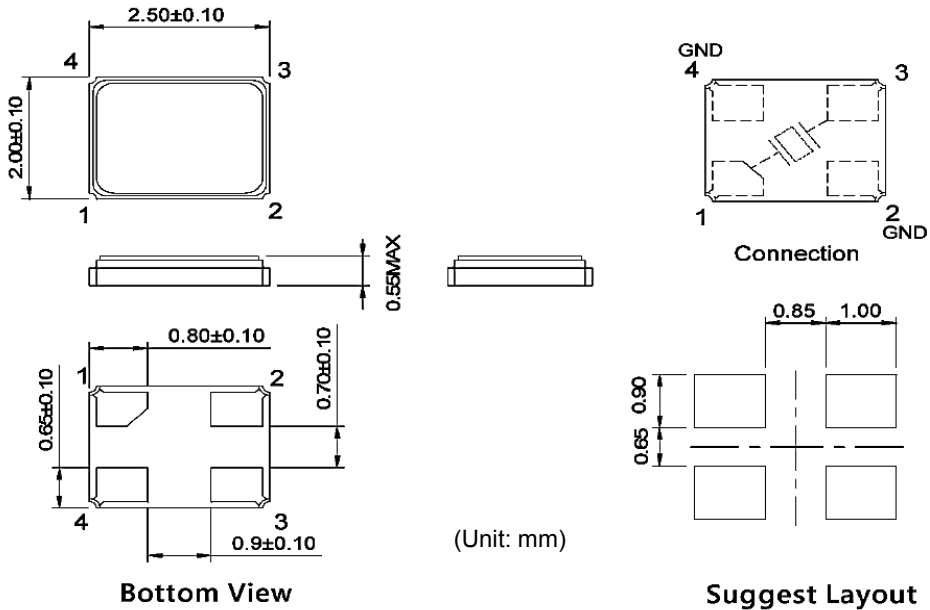
Notes:

[1] Please contact us for low aging +/-1ppm grade crystals.

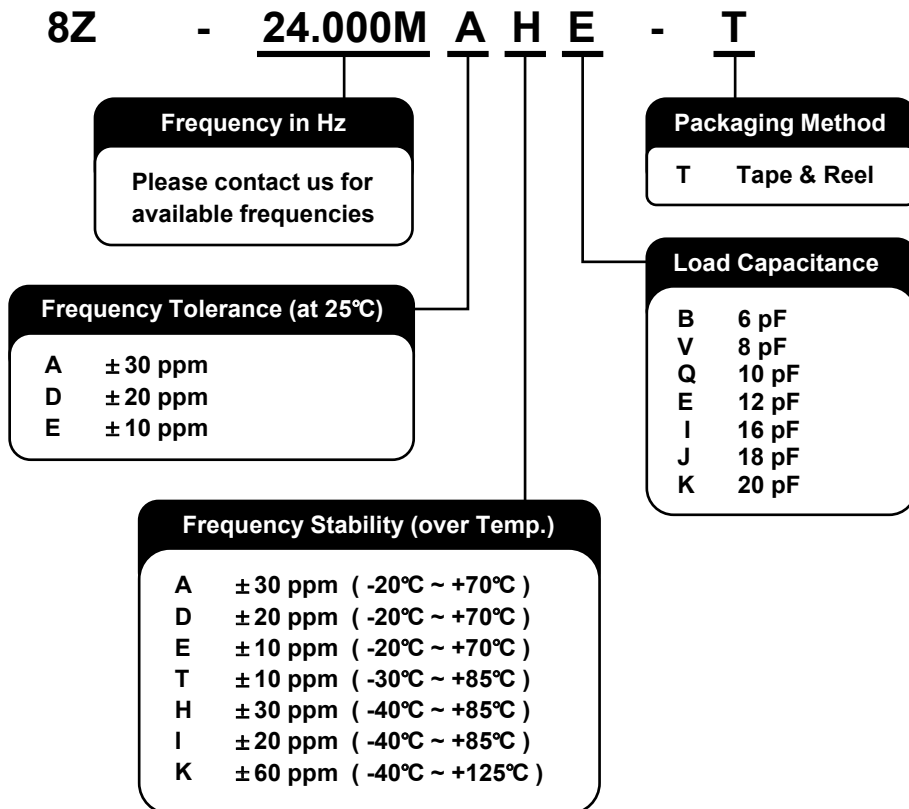
Motional Resistance (ESR)

| Fundamental | |
|-------------|-----------|
| 12 ~ 13 MHz | 150Ω Max. |
| 14 ~ 30 MHz | 100Ω Max. |
| 30 ~ 66 MHz | 60Ω Max. |

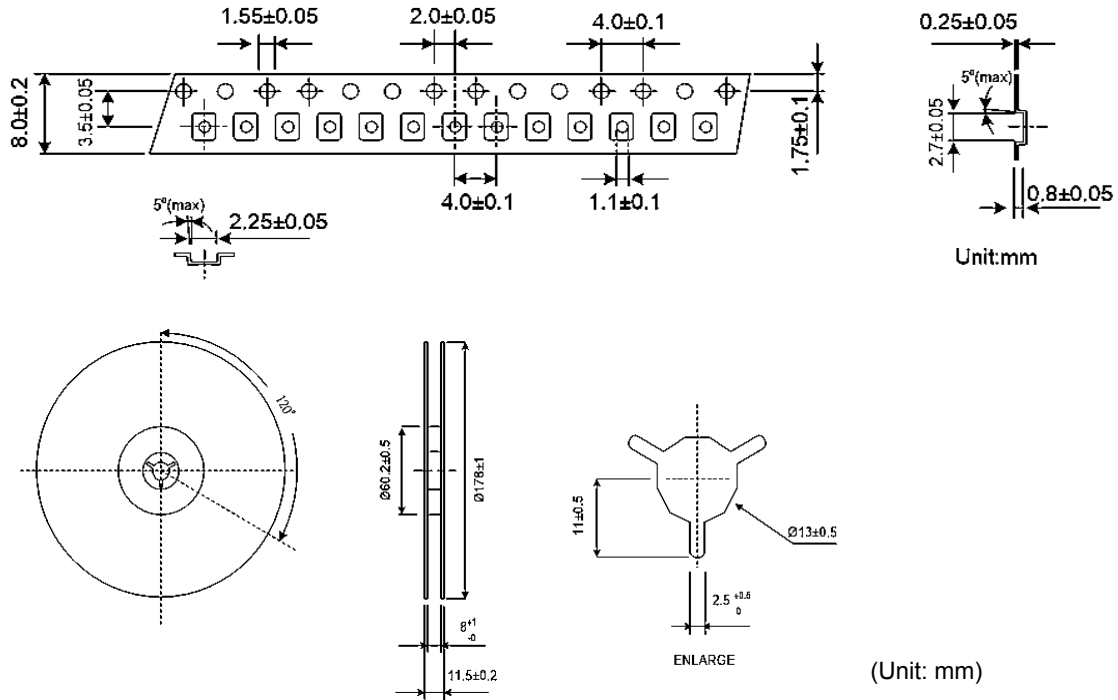
Dimensions



Ordering Information



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.

