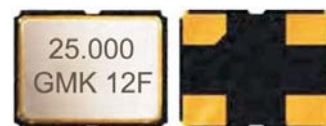




# SEAM SEALED CERAMIC 2.5x2.0mm Surface Mount Package

## FEATURE

- Ultra small SMD seam sealed clock crystal oscillator units.
- For applications in WLAN, Bluetooth and other IT product.
- Tri-state function available.
- RoHS Compliant / Pb Free.

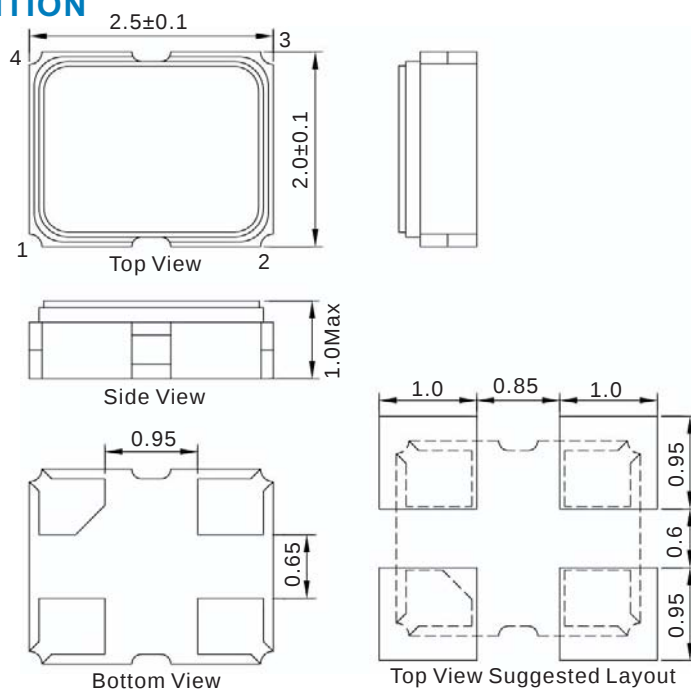
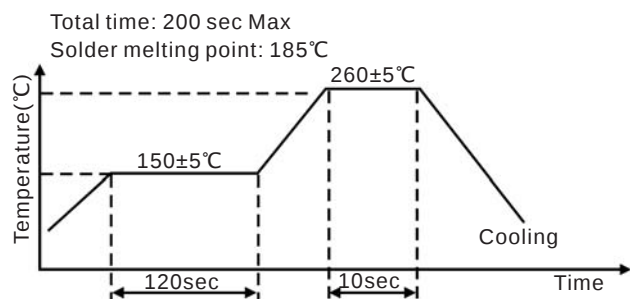


## ELECTRICAL SPECIFICATIONS

| Frequency Range                                                                                |                                | 1.000MHz ~ 60.000MHz                                                                              |                       |
|------------------------------------------------------------------------------------------------|--------------------------------|---------------------------------------------------------------------------------------------------|-----------------------|
| Overall Frequency Stability                                                                    |                                | $\pm 25\text{ppm} \sim \pm 100\text{ppm}$<br>(Inclusive of Operating Temp, Supply Voltage & Load) |                       |
| Operating Temperature                                                                          |                                | $-10^{\circ}\text{C} \sim +60^{\circ}\text{C}$ to $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$  |                       |
| Storage Temperature                                                                            |                                | $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$ / $-55^{\circ}\text{C} \sim +125^{\circ}\text{C}$  |                       |
| Supply Voltage                                                                                 |                                | 5.0V                                                                                              | 3.3V                  |
| Input Current Max                                                                              |                                | 15mA                                                                                              | 10mA                  |
| Output Voltage                                                                                 | $V_{OL}(\text{Max})$ TTL/HCOMS | $0.4V_{DC}$                                                                                       | $0.4V_{DC}$           |
|                                                                                                | $V_{OH}(\text{Min})$ TTL/HCOMS | $2.4V_{DC}/2.7V_{DC}$                                                                             | $2.4V_{DC}/2.7V_{DC}$ |
| Symmetry (Duty Cycle)                                                                          |                                | 40/60% Std. / 45/55% Available                                                                    |                       |
| Rise/Fall Time                                                                                 |                                | 10ns Max <5ns Typical                                                                             |                       |
| Start Time                                                                                     |                                | 10ms Max <5ms Typical                                                                             |                       |
| Aging @25°C 1 <sup>st</sup> year (Max)                                                         |                                | $\pm 3\text{ppm}$ , $\pm 5\text{ppm}/\text{year}$                                                 |                       |
| Output Load                                                                                    |                                | 10TTL or 15pF HCMOS                                                                               |                       |
| Tri state Function (Pin 1 has internal pull-up resistor allowing it to be left floating high.) |                                | $V_{IH}$ : 2.2V or Open Enables Output                                                            |                       |
|                                                                                                |                                | $V_{IL}$ : 0.8V or Disables Output                                                                |                       |
| Output Enable/ Disable Time                                                                    |                                | 100ns Max                                                                                         |                       |

## DIMENSIONS & PACKING & REFLOW CONDITION

| PIN | Connection      |
|-----|-----------------|
| 1   | N.C / Tri-State |
| 2   | GND             |
| 3   | Output          |
| 4   | $V_{DD}$        |



## PART NUMBER

|               |                        |                                     |                                      |                                   |                                                                       |                                                          |                                               |
|---------------|------------------------|-------------------------------------|--------------------------------------|-----------------------------------|-----------------------------------------------------------------------|----------------------------------------------------------|-----------------------------------------------|
| GMK-OSMD2520- | 25.000                 | 50                                  | 3.3                                  | S                                 | 1                                                                     | B                                                        | T                                             |
|               | Frequency<br>25.000MHz | Overall Freq.<br>Stability<br>50ppm | Supply Voltage<br>5:5.0V<br>3.3:3.3V | Symmetry:<br>S:40/60%<br>T:45/55% | Output<br>1:15pF HCMOS<br>2:10TTL<br>3:30pF<br>4:50pF<br>5:10TTL/15pF | Operating Temp<br>A:-10~60°C<br>B:-20~70°C<br>C:-40~85°C | Option:<br>T:Tri state<br>Blank:No Connection |