

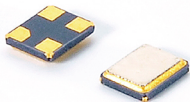
# 2.0x1.6 SMD Crystal

## FEATURE

- Rugged AT-cut crystal construction.
- Miniature 2.0×1.6mm ceramic package.
- Designed for automatic mounting and reflow soldering.
- Embossed taping specification.
- Pb-free and RoHS/Green compliant.

## APPLICATIONS

- Ideally suited designed for Bluetooth wireless communication sets, HDD, DSN, PDA, GPS, Digital Tuner, Wireless LAN and mobile phone.



Pb  
Free

RoHS Compliant  
Directive 2002/95/EC

## Electrical Specifications 电气参数

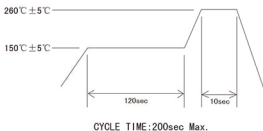
| 型号     | Holder Type                                  | 2.0x1.6mm Ceramic Surface Mount                       |
|--------|----------------------------------------------|-------------------------------------------------------|
| 频率范围   | Frequency Range                              | 24.000MHz to 54.000MHz                                |
| 调整频差   | Frequency Tolerance ( $\Delta F$ ) (at 25°C) | $\pm 10\text{ppm}$ to $\pm 30\text{ppm}$              |
| 温度频差   | Frequency Drift                              | $\pm 10\text{ppm}$ to $\pm 30\text{ppm}$ ※(See Notes) |
| 工作温度范围 | Operating Temperature Range                  | -20°C ~ +70°C / -40°C ~ +85°C                         |
| 储存温度范围 | Storage Temperature Range                    | -40°C ~ +85°C / -55°C ~ +125°C                        |
| 老化     | Aging (25°C)                                 | $\pm 3\text{ppm}$ / year max.                         |
| 静电容    | Shunt Capacitance (C0)                       | 3pF max.                                              |
| 激励功率   | Drive Level                                  | 10 $\mu\text{W}$ (100 $\mu\text{W}$ max.)             |
| 绝缘阻抗   | Insulation Resistance (Rs)                   | 500 Megohms Minimum at D.C100V                        |
| 负载电容   | Load Capacitance (CL)                        | Suggested by customer                                 |

※Notes:  $\pm 10$ ,  $\pm 20$ ,  $\pm 30\text{ppm}$  (-20°C to +70°C)  
 $\pm 20$ ,  $\pm 30$ ,  $\pm 50\text{ppm}$  (-40°C to +85°C) or depends on customer

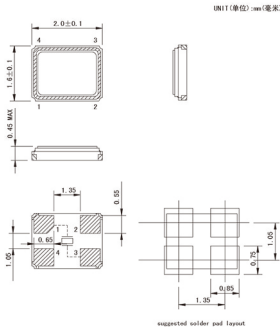
## Equivalent Series Resistance and Mode of Operation 等效阻抗和振荡模式

| Frequency Range 频率范围                  | ESR ( $\Omega$ ) 等效阻抗 | Mode 振荡模式   |
|---------------------------------------|-----------------------|-------------|
| 24.000MHz $\leq f < 26.000\text{MHz}$ | 80 $\Omega$ max       | Fundamental |
| 26.000MHz $\leq f < 40.000\text{MHz}$ | 60 $\Omega$ max       | Fundamental |
| 40.000MHz $\leq f < 50.000\text{MHz}$ | 50 $\Omega$ max       | Fundamental |

## Reflow Condition(回流焊条件)



## Mechanical Dimensions 外型尺寸



Note) #2, #4 is connected with a cover  
 (Please connect with a GND or a power supply)