

# **SMD CRYSTAL**

#### **Features**

- •Typical 2.5x2.0x0.55 mm ultra thin ceramic package...
- •Automatic mounting is possible.
- •RoHS compliant and lead free
- •Packing : Tape & Reel.



## **Specifications**

**RoHS Compliance** 

Parameter	Min.	Typical	Max.	Unit
Storage Temp. Range	-40	-	85	°C
Standard Frequency	12~80			MHz
Level of Drive	-	10	100	μW
Shunt Capacitance(Co)	-	-	3.5	pF
Insulation Resistance	500MΩ @DC100V	-	-	
Aging	±3.0			ppm/year

Standard frequencies are frequencies which the crystal has been designed and does not imply a stock position.

### **Equivalent Series Resistance (ESR)**

Type Frequency	Mode	ESR
12MHz≤ Freq. ≤15MHz	Fund	180Ω
16MHz< Freq. ≤20MHz	Fund	150Ω
21MHz< Freq. ≤30MHz	Fund	100Ω
31MHz< Freq. ≤80MHz	Fund	60Ω

Freq. Stability vs Temp. Range

PPM Temp.	±10	±15	±20
-10 ~ +60°C	Δ	0	0
-20 ~ +70 ℃	Χ	0	0
-40 ~ +85℃	Х	Δ	0

<sup>\*○:</sup>Standard △:Available(case by case) X:Not available

#### **DIMENSION** (Unit: mm) SOLDER PAD LAYOUT (mm)

