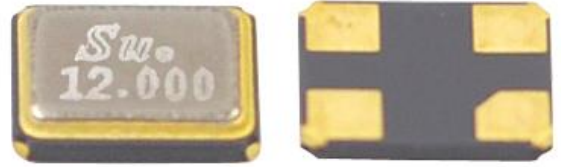


TSQ-3225SMD

FEATURES

- Rugged AT-cut crystal construction: Embossed tapping specification
- Miniature 3.2×2.5mm ceramic package
- Pb-free and RoHS/Green compliant
- Designed for automatic mounting and reflow soldering

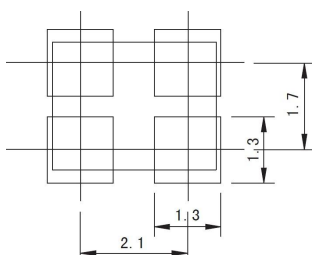
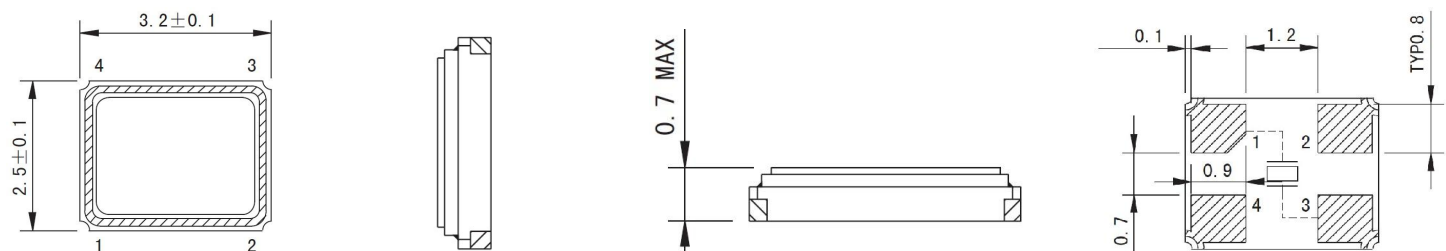


SPECIFICATIONS	
Holder Type	3.2x2.5mm Ceramic Surface Mount
Frequency Range	12MHz to 54MHz
Frequency Tolerance (ΔF) (at25°C)	±10ppm to ±30ppm
Frequency Drift	±10ppm to ±30ppm※(See Notes)
Operating Temperature Range	-20°C - +70°C / -40°C - +85°C
Storage Temperature Range	-40°C - +85°C / -55°C - +125°C
Aging (25°C)	±3ppm/ year max.
Shunt Capacitance (C0)	3pF max.
Drive Level	10μw (100μW max.)
Insulation Resistance (Rs)	500 Mega ohms Minimum at D.C100V
Load Capacitance (CL)	Suggested by customer

※Notes:±10, ±20, ±30ppm (-20°C to +70°C)
±20, ±30, ±50ppm (-40°C to +85°C) or depends on customer

EQUIVALENT SERIES RESISTANCE(ESR) AND MODE OF OPERATION		
Frequency Range	ESR(Ω)	Mode
12.000MHz ≤ f < 16.000MHz	100max	Fundamental
16.000MHz ≤ f < 20.000MHz	80max	Fundamental
20.000MHz ≤ f < 24.000MHz	60max	Fundamental
24.000MHz ≤ f < 54.000MHz	40max	Fundamental

Mechanical Dimensions Unit: mm



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

Suggested solder pad

Note: Specification are subject to change without notice. For more detail and update, please visit our website.