

# SMD QUARTZ CRYSTAL

## SERIES SMD01612 (4pad housing 1.6x1.2mm)

### FEATURES

- + Tight tolerance / tight stability available
- + High reliability for low cost
- + Low profile – 0.35 mm package height
- + Ultra miniature size and light weight
- + Typical applications: SPS, Wearables, IoT, WLAN, ISM Band, Wireless Keypads, Smart Metering and Smart Home, Industrial, Medical, Telecom, etc.



PB FREE / ROHS COMPLIANT

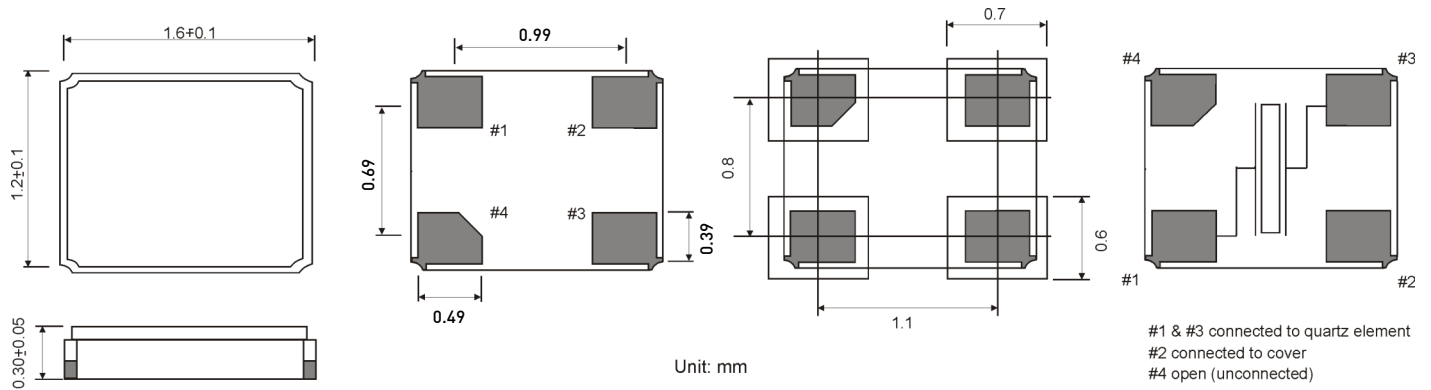
### GENERAL DATA

PARAMETERS	PRODUCT FEATURES AND CONDITIONS
SMD-CRYSTAL SERIES	SMD01612/4 [1.6x1.2x0.35mm]
NUMBER OF SOLDER PINS	4
FREQUENCY RANGE	24.0 ~ 54.0 MHz AT-Fundamental
FREQUENCY TOLERANCES AT 25°C	±10 ppm ~ ±50 ppm
LOAD CAPACITANCE (CL)	Series, 8 pF, 10 pF, 12 pF (other CL on request)
WORKING TEMPERATURE RANGES	-10/+60°C ~ -30/+85°C
DRIVE LEVEL	10 µW typical (100 µW max.)
AGING	±5 ppm max. after first year ±10 ppm max. after 5 years ±15 ppm max. after 10 years
EQUIVALENT SERIES RESISTANCE (ESR)	24.0 ~ 32.0 MHz = 200 Ω max. 32.0 ~ 40.0 MHz = 150 Ω max. 40.0 ~ 54.0 MHz = 100 Ω max.
INSULATION RESISTANCE	>500 MΩ DC/100V ±10%
STORAGE TEMPERATURE	-40°+85°C
DELIVERY FORM	Tape and Reel (3.000 pcs reel)
<a href="#">SELECT YOUR REQUIRED CRYSTAL [PRODUCT CONFIGURATOR]</a>	<a href="#">REQUEST CRYSTAL SAMPLES [SAMPLE CONFIGURATOR]</a>

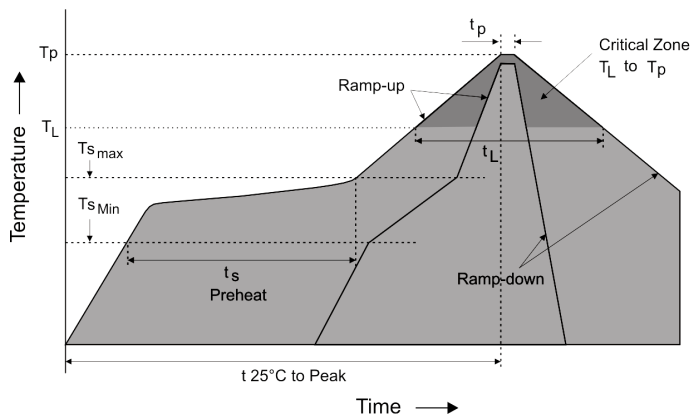
### FREQUENCY STABILITY VS. TEMPERATURE

	±8ppm	±12ppm	±15ppm	±20ppm	±30ppm	±50ppm
-10°/+60°C	+	+	+	+	+	+
-20°/+70°C		+	+	+	+	+
-30°/+85°C			+	+	+	+

## DIMENSIONS

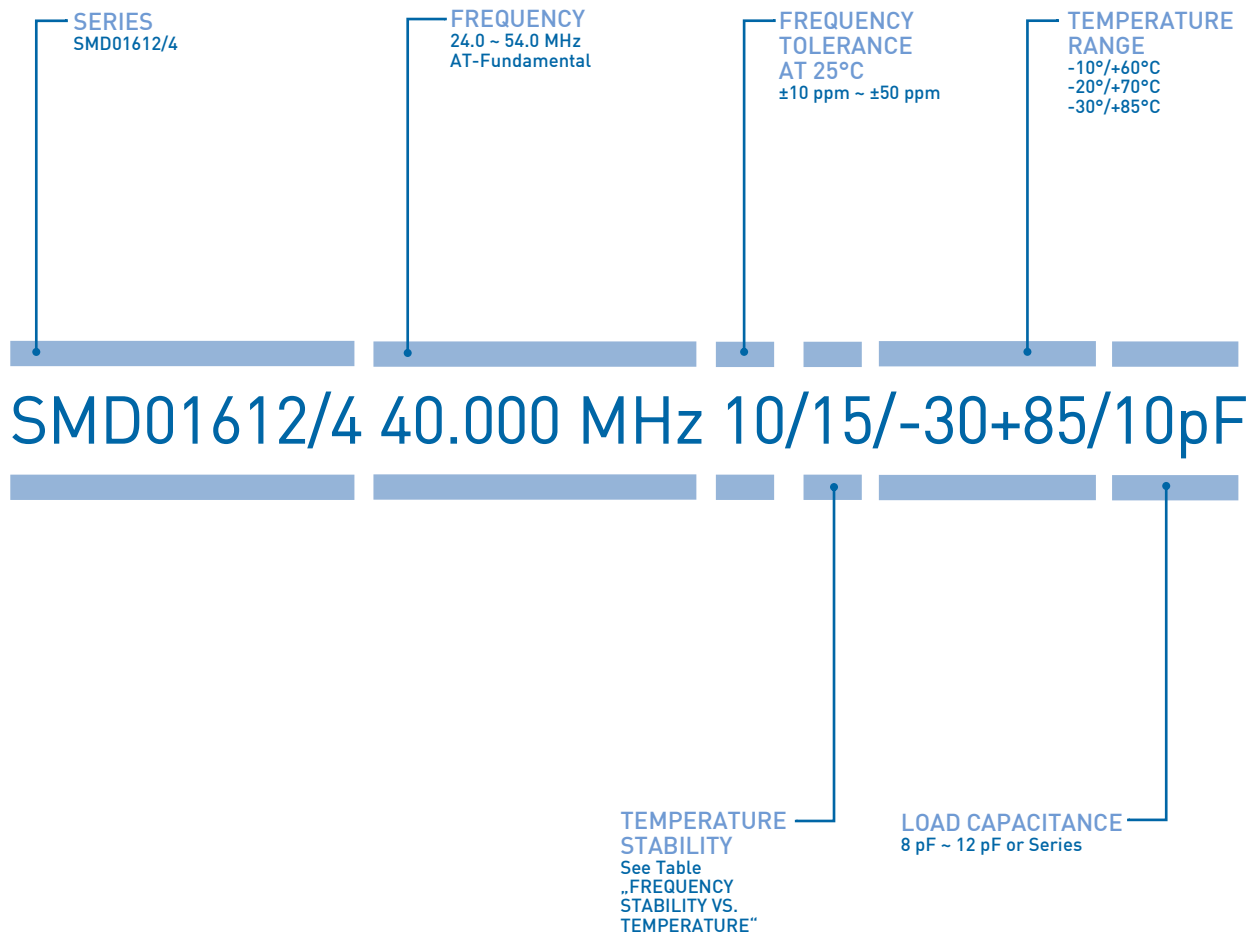


## REFLOW SOLDER PROFILE



Profile Feature	Pb-Free Assembly
Average ramp-up rate (TL to TP)	3°C/second max.
Preheat:	
Temperature Min (T <sub>smin</sub> )	150°C
Temperature Max (T <sub>smax</sub> )	200°C
Time (min to max) (t <sub>s</sub> )	60-180 seconds
Time maintained above:	
Temperature (TL)	217°C
Time (t <sub>L</sub> )	60-150 seconds
Peak/Classification Temperature (T <sub>p</sub> )	260°C
Time within 5°C of actual Peak Temperature (t <sub>p</sub> )	20-40 seconds
Ramp-down Rate	6°C/second max.
Time 25°C to Peak Temperature	8 minutes max.

## ORDERING INFORMATION



EXAMPLE: SMD01612/4 40.000 MHz 10/15/-30+85/10pF

PLEASE INDICATE YOUR REQUIRED PARAMETERS



## PREMIUM QUALITY BY PETERMANN-TECHNIK



OUR COMPANY IS CERTIFIED ACCORDING TO ISO 9001:2008 IN OCTOBER 2013 BY THE DMSZ CERTIFIKATION GMBH.

THIS IS FOR YOU TO ENSURE THAT THE PRINCIPLES OF QUALITY MANAGEMENT ARE FULLY IMPLEMENTED IN OUR QUALITY MANAGEMENT SYSTEM AND QUALITY CONTROL METHODS ALSO DOMINATE OUR QUALITY STANDARDS.