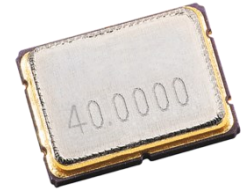


# SMD QUARTZ CRYSTAL

## SERIES SMD0503/2

### FEATURES

- + High reliability for low cost
- + Tight tolerance / tight stability available
- + Low profile - 0.7 mm package height
- + Extended temperature range to -40/+125°C available
- + Qualified for automotive applications
- + Excellent clock generator for CPU's, Wireless, Mobile Comm., etc.



PB FREE / ROHS-2 2011/65/EU COMPLIANT

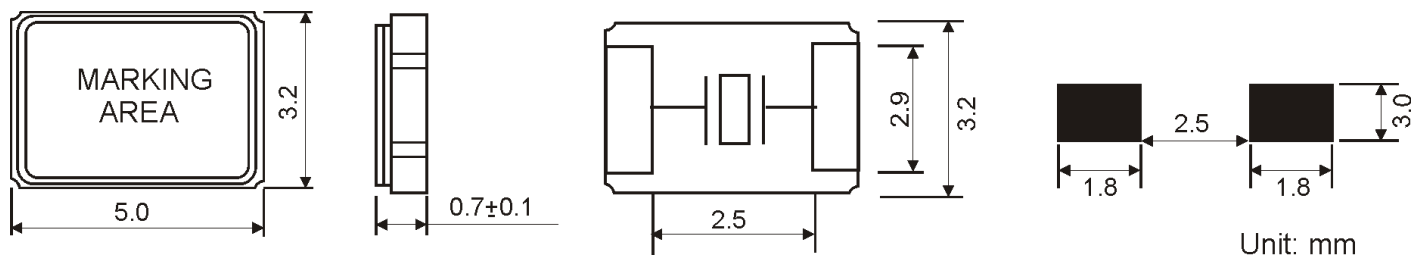
### GENERAL DATA

PARAMETERS	PRODUCT FEATURES AND CONDITIONS
SMD-CRYSTAL SERIES	SMD0503/2
NUMBER OF SOLDER PINS	2
FREQUENCY RANGE	8.0 ~ 80.0 MHz AT-Fundamental 40.0 ~ 90.0 MHz 3rd Overtone
FREQUENCY TOLERANCES AT 25°C	±5 ppm ~ ±50 ppm
LOAD CAPACITANCE (C <sub>L</sub> )	6 pF ~ 50 pF or Series
WORKING TEMPERATURE RANGES	0/+50°C ~ -40/+125°C
SHUNT CAPACITANCE (C <sub>0</sub> )	7 pF max.
DRIVE LEVEL	0.01 mW ~ 0.1 mW standard (optional 1 mW available)
AGING	±2 ppm per year standard (±1 ppm available as option)
INSULATION RESISTANCE	>500 MΩ DC/100V ±10%
STORAGE TEMPERATURE	-55°/+125°C
DELIVERY FORM	Tape and Reel (1.000 pcs per reel)
<a href="#">OTHER PARAMETERS ARE AVAILABLE ON REQUEST / CREATE HERE YOUR SPECIFICATION</a>	

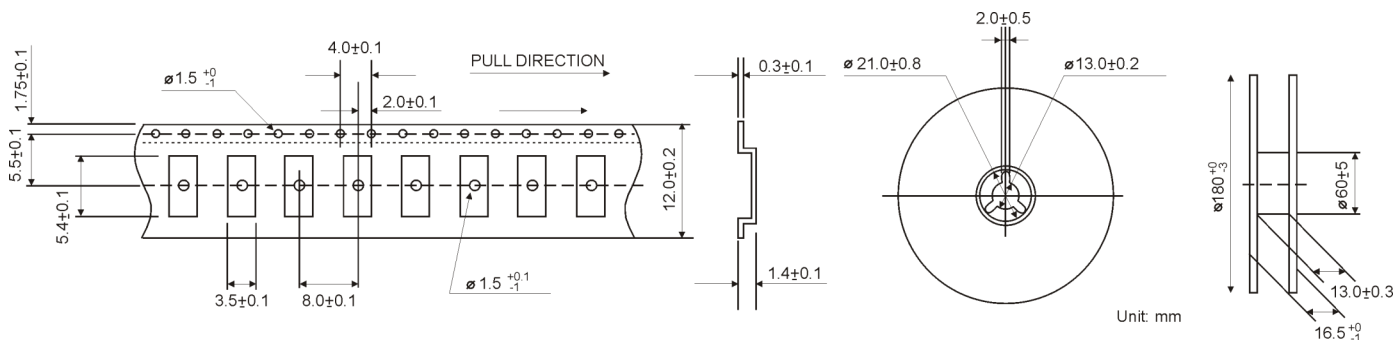
### FREQUENCY STABILITY VS. TEMPERATURE

	±5ppm	±10ppm	±15ppm	±20ppm	±30ppm	±50ppm
0°/+50°C	+	+	+	+	+	+
-10°/+60°C	+	+	+	+	+	+
0°/+70°C		+	+	+	+	+
-20°/+70°C		+	+	+	+	+
-40°/+85°C			+	+	+	+
-40°/+125°C						+

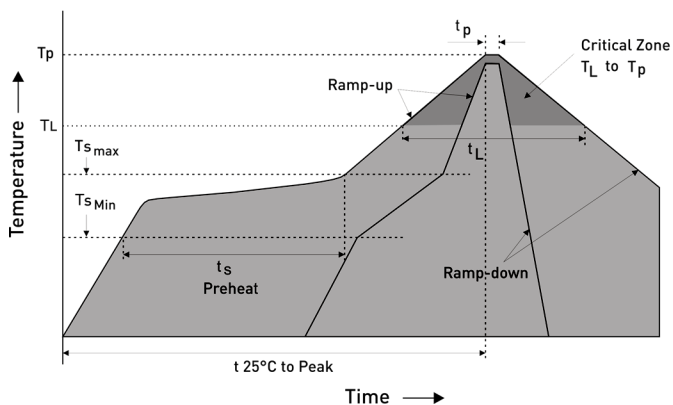
## DIMENSIONS



## REEL SPECIFICATION



## REEL SOLDER PROFILE

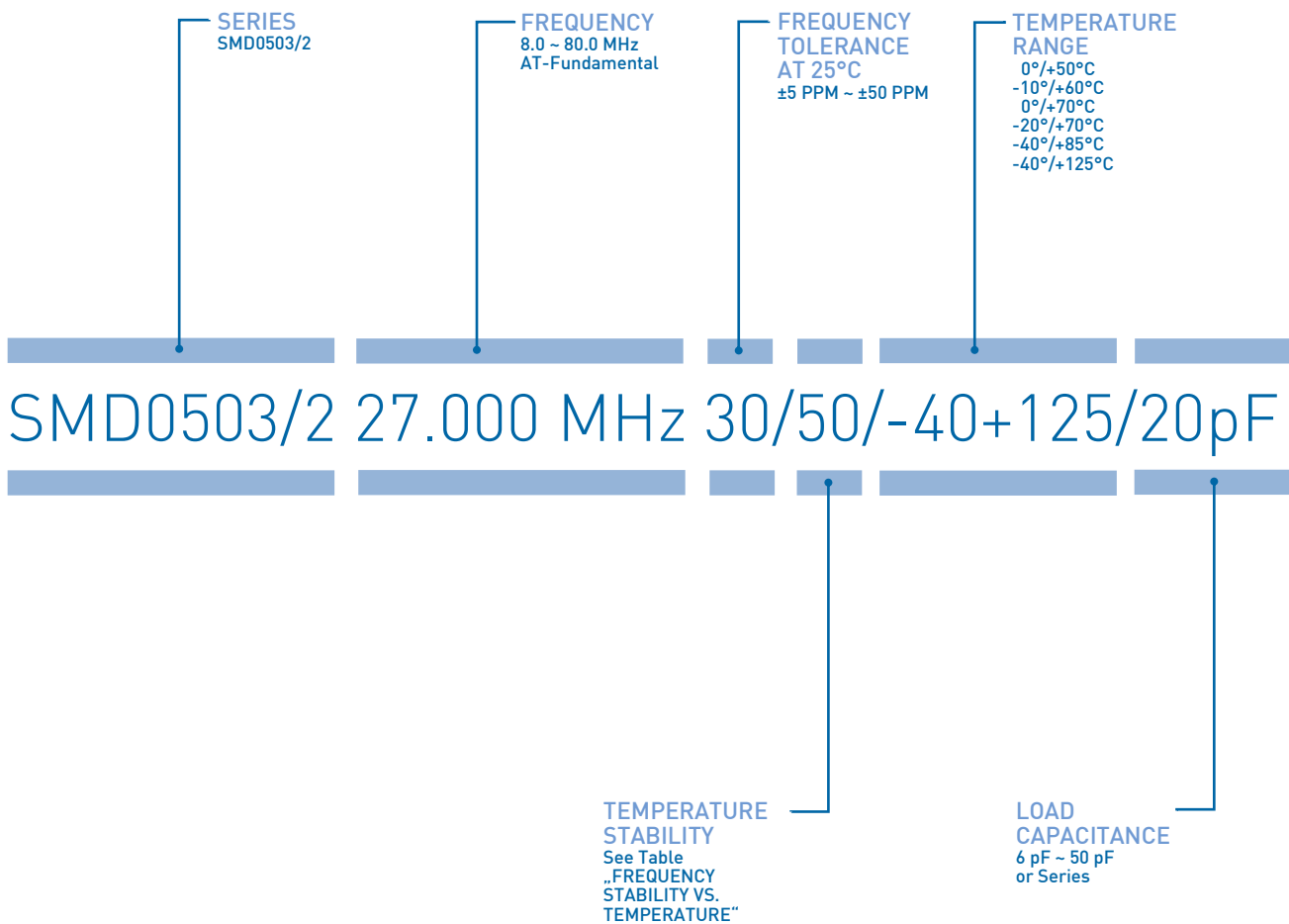


Profile Feature	Pb-Free Assembly
Average ramp-up rate (TL to TP)	3°C/second max.
Preheat:	
Temperature Min (T <sub>smin</sub> )	150°C
Temperature Max (T <sub>smax</sub> )	200°C
Time (min to max) (t <sub>s</sub> )	60-180 seconds
Time maintained above:	
Temperature (TL)	217°C
Time (t <sub>L</sub> )	60-150 seconds
Peak/Classification Temperature (T <sub>p</sub> )	240°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.

## RESONANCE RESISTANCE

FREQUENCY IN MHz	VIBRATION MODE	ESR MAX. IN $\Omega$
8.0 ~ 80.0 MHz	AT Fund.	40 ~ 80 max.
40.0 ~ 90.0 MHz	3rd OT AT	60 max.

## ORDERING INFORMATION



EXAMPLE: SMD0503/2 27.000 MHz 30/50/-40+125/20pF  
 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.