

# SMD QUARTZ CRYSTAL

SERIES SMD03025/4 (4 pad housing 3.2x2.5mm)

## FEATURES

- + Cheapest available miniature SMD-Crystal in ceramic package
- + High reliability for low cost
- + Low profile – 0.8 mm package height
- + Extended temperature range to -40/+125°C available
- + Designed for the use in wireless, communication, automotive, etc.
- + Tight tolerances and stabilities available



PB FREE / ROHS COMPLIANT

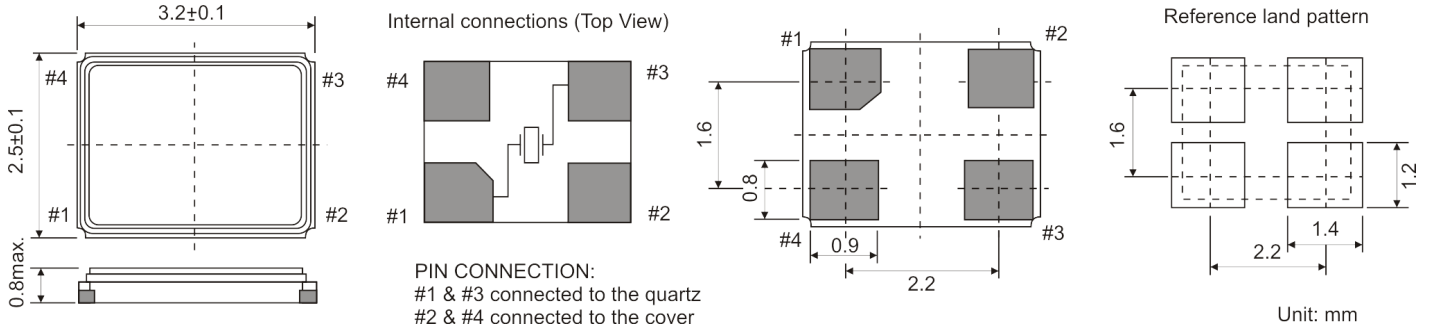
## GENERAL DATA

PARAMETERS	PRODUCT FEATURES AND CONDITIONS
SMD-CRYSTAL SERIES	SMD03025/4
NUMBER OF SOLDER PADS	4
FREQUENCY RANGE	12.0 ~ 80.0 MHz AT-Fundamental
FREQUENCY TOLERANCES AT 25°C	±10 ppm ~ ±50 ppm
LOAD CAPACITANCE (C <sub>L</sub> )	6 pF ~ 30 pF (12 pF standard), or Series
WORKING TEMPERATURE RANGES	0/+50°C ~ -40/+125°C
SHUNT CAPACITANCE (C <sub>0</sub> )	3 pF max.
DRIVE LEVEL	10 µW ~ 100 µW typ. / 200 µW max. ( 500 µW available on request)
AGING	±3 ppm per year standard (±1 or ±2 ppm available on request)
INSULATION RESISTANCE	>500 MΩ DC/100V ±10%
STORAGE TEMPERATURE	-55°/+125°C
DELIVERY FORM	Tape and Reel (3.000 pcs per reel, other quantities available on request)
<a href="#">SELECT YOUR REQUIRED CRYSTAL (PRODUCT CONFIGURATOR)</a>	<a href="#">REQUEST CRYSTAL SAMPLES (SAMPLE CONFIGURATOR)</a>

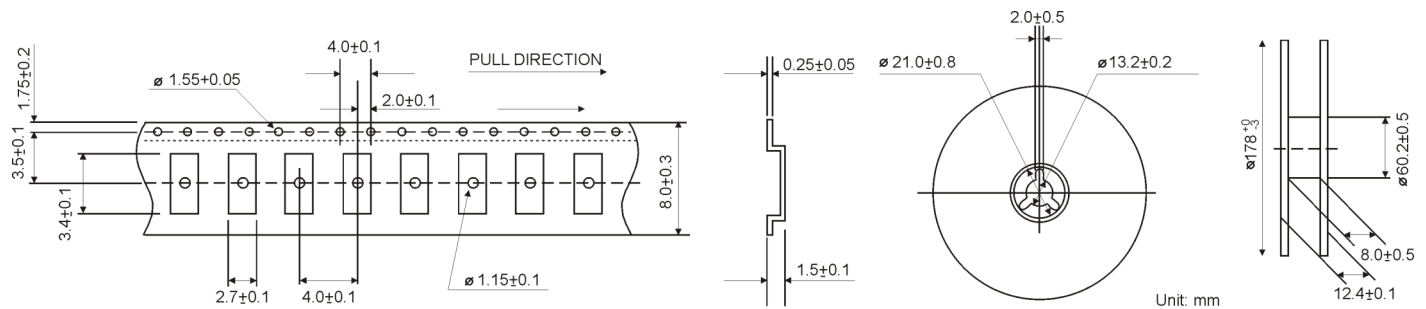
## FREQUENCY STABILITY VS. TEMPERATURE

	±8ppm	±10ppm	±15ppm	±20ppm	±30ppm	±50ppm
0°/+50°C	+	+	+	+	+	+
-10°/+60°C	+	+	+	+	+	+
0°/+70°C	+	+	+	+	+	+
-20°/+70°C		+	+	+	+	+
-40°/+85°C			+	+	+	+
-40°/+125°C						+

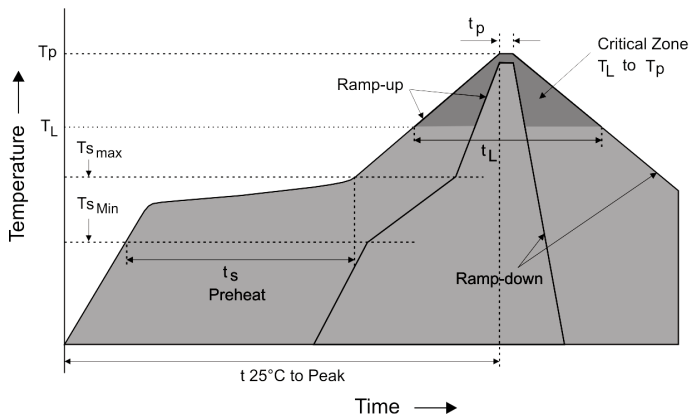
## DIMENSIONS



## REEL SPECIFICATION



## REFLOW SOLDER PROFILE

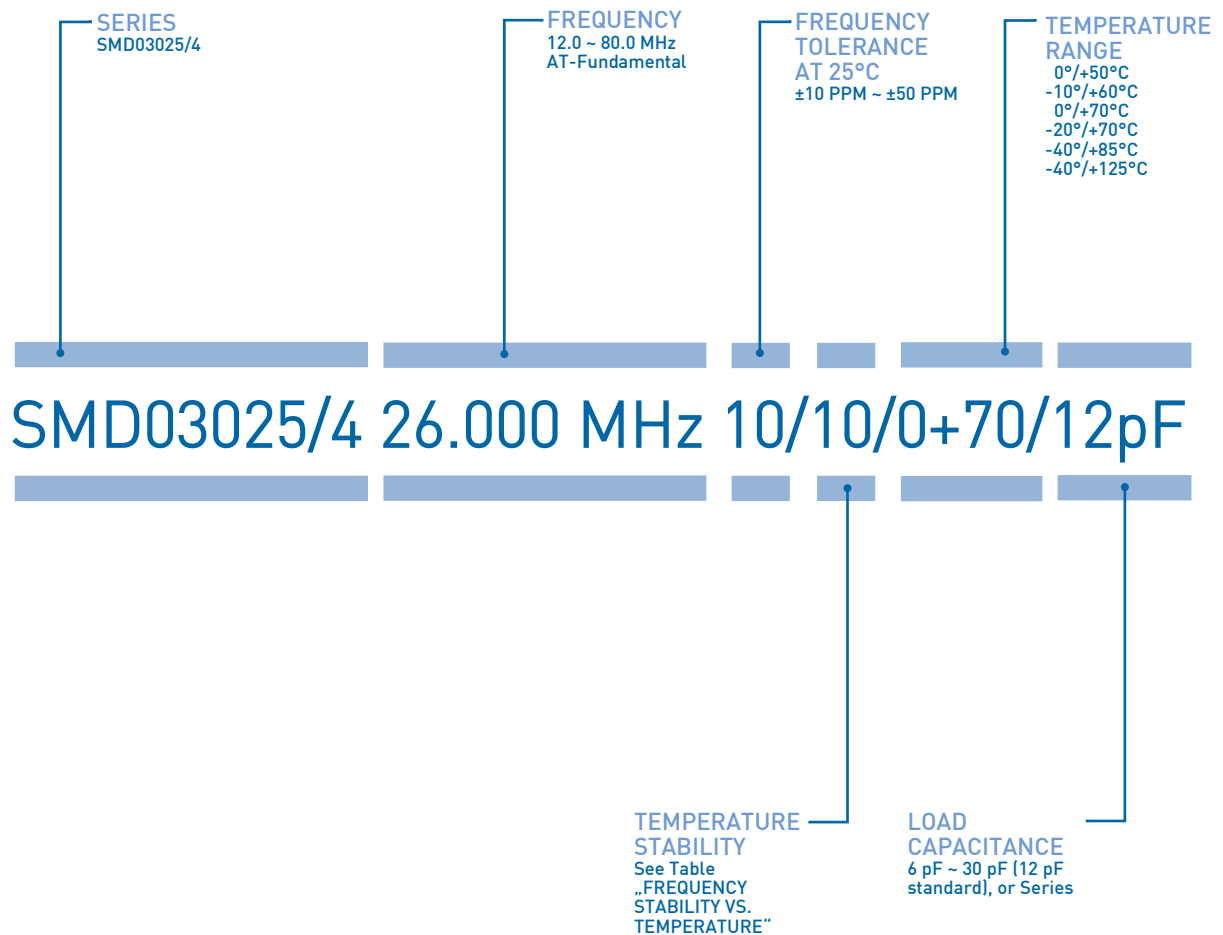


Profile Feature	Pb-Free Assembly
Average ramp-up rate (TL to TP)	3°C/second max.
Preheat:	
Temperature Min (Tsmin)	150°C
Temperature Max (Tsmax)	200°C
Time (min to max) (ts)	60-180 seconds
Time maintained above:	
Temperature (TL)	217°C
Time (tL)	60-150 seconds
Peak/Classification Temperature (Tp)	260°C
Time within 5°C of actual Peak Temperature (tp)	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 $\Omega$
12.0 ~ 20.0 MHz	AT Fund.	70
20.0 ~ 40.0 MHz	AT Fund.	40
40.0 ~ 80.0 MHz	AT Fund.	25

## ORDERING INFORMATION



EXAMPLE: SMD03025/4 26.000 MHz 10/10/0+70/12pF  
PLEASE INDICATE YOUR REQUIRED PARAMETERS

## REVISION HISTORY

REVISION	RELEASE DATE	AMENDMENTS SUMMARY
00	MARCH 2015	+ Initial Data Sheet (SPEC 01/REV.00)
01	DECEMBER 2016	+ Revised load capacitance, shunt capacitance and drive level
02	DECEMBER 2017	+ Revised housing height



## PREMIUM QUALITY BY PETERMANN-TECHNIK



OUR COMPANY IS CERTIFIED ACCORDING TO ISO 9001:2015 IN OCTOBER 2016 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.