

SMD QUARTZ CRYSTAL

SERIES SMD0603/4 (4 pad housing 6.0x3.5mm)

FEATURES

- + High reliability for low cost
- + Low profile - 1.2 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 COMPLIANT

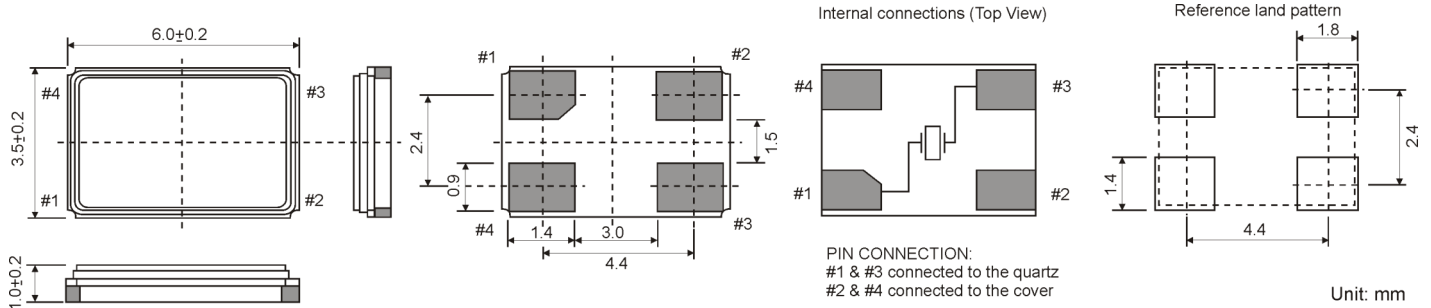
GENERAL DATA

PARAMETERS	PRODUCT FEATURES AND CONDITIONS
SMD-CRYSTAL SERIES	SMD0603/4
NUMBER OF SOLDER PINS	4
FREQUENCY RANGE	8.0 ~ 50.0 MHz AT-Fundamental 40.0 ~ 80.0 MHz 3rd Overtone
FREQUENCY TOLERANCES AT 25°C	±5 ppm ~ ±50 ppm
LOAD CAPACITANCE (C _L)	6 pF ~ 50 pF or Series
WORKING TEMPERATURE RANGES	0/+50°C ~ -40/+125°C
SHUNT CAPACITANCE (C ₀)	7 pF max.
DRIVE LEVEL	0.01 mW ~ 0.1 mW standard (optional 500 µW 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)
SELECT YOUR REQUIRED CRYSTAL (PRODUCT CONFIGURATOR)	REQUEST CRYSTAL SAMPLES (SAMPLE CONFIGURATOR)

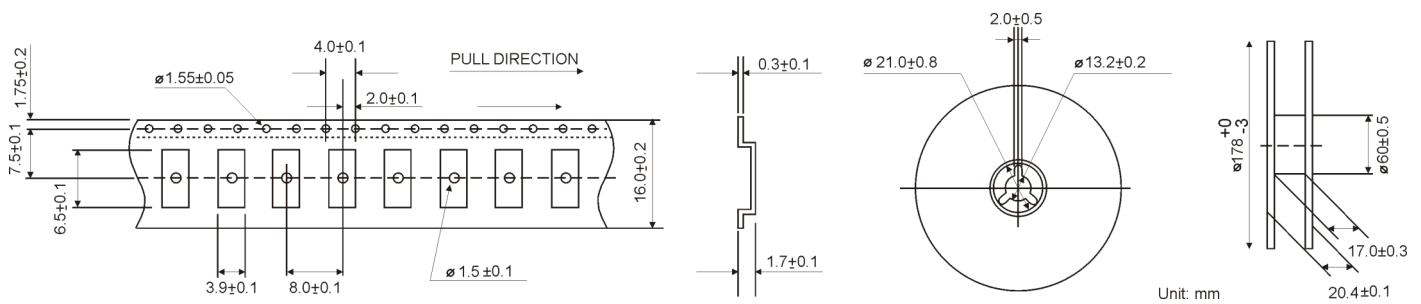
FREQUENCY STABILITY VS. TEMPERATURE

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

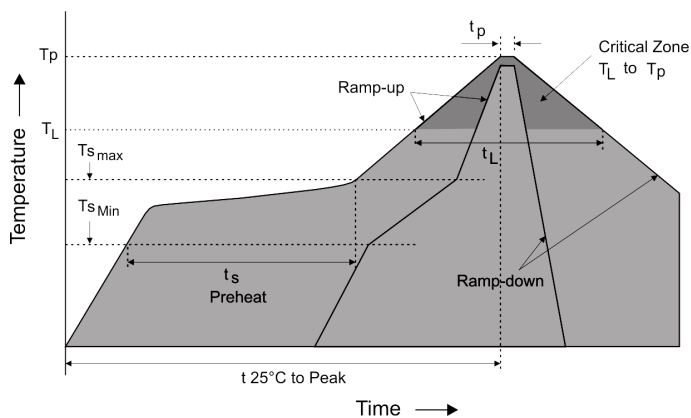
DIMENSIONS



REEL SPECIFICATION



REEL SOLDER PROFILE

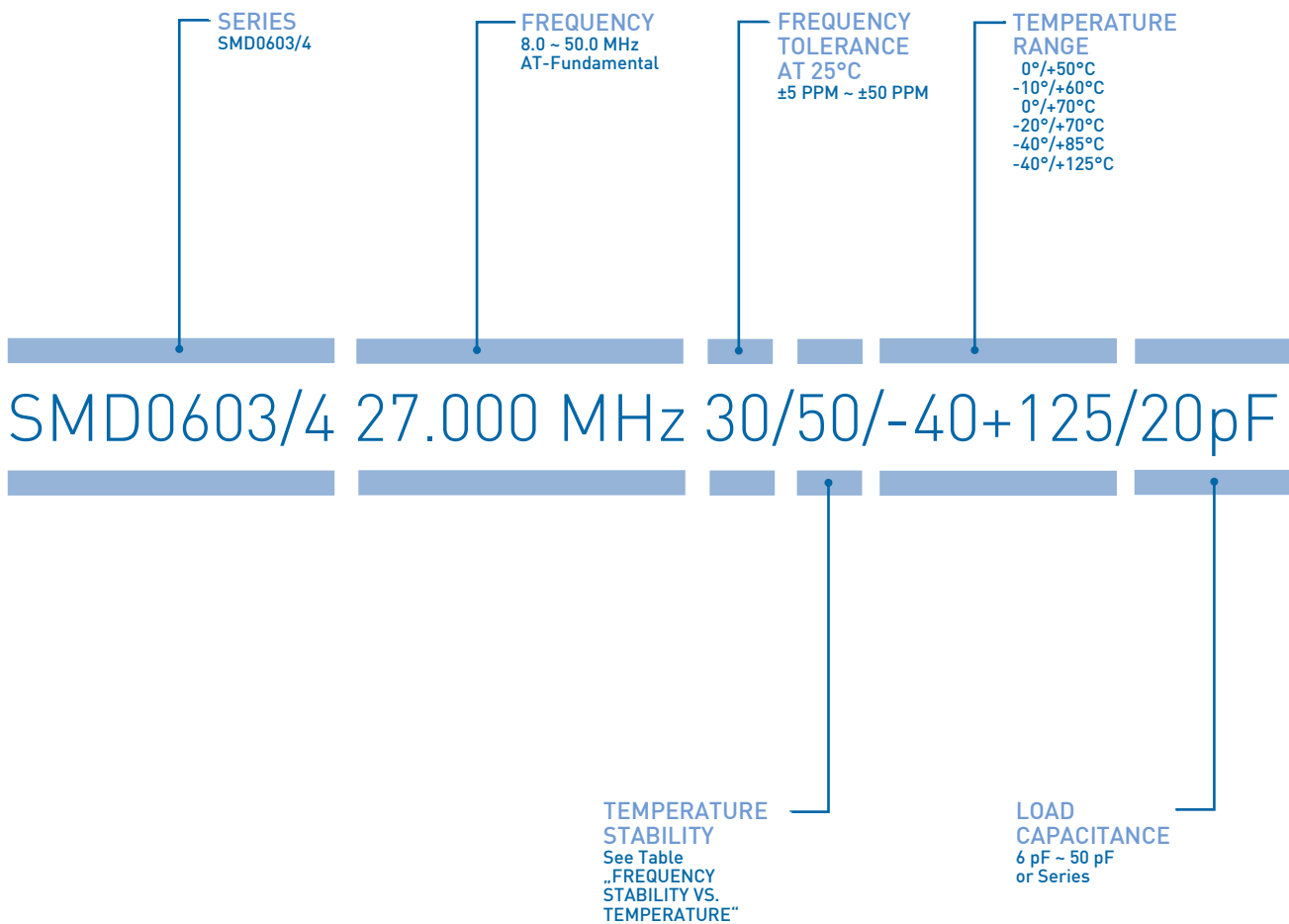


Profile Feature	Pb-Free Assembly
Average ramp-up rate (TL to TP)	3°C/second max.
Preheat:	
Temperature Min (Tsmin)	150°C
Temperature Max (Tsmax)	200°C
Time (min to max) (ts)	60-180 seconds
Time maintained above:	
Temperature (TL)	217°C
Time (tL)	60-150 seconds
Peak/Classification Temperature (Tp)	260°C
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 Ω
8.0 ~ 80.0 MHz	AT Fund.	40 ~ 80 max.
40.0 ~ 90.0 MHz	3rd OT AT	60 max.

ORDERING INFORMATION



EXAMPLE: SMD0603/4 27.000 MHz 30/50/-40+125/20pF
PLEASE INDICATE YOUR REQUIRED PARAMETERS



REVISION HISTORY

REVISION	RELEASE DATE	AMENDMENTS SUMMARY
00	MAY 2015	+ Initial Data Sheet (SPEC 01/REV.00)
01	JANUARY 2017	+ Revised drive level



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.