

SMD QUARTZ CRYSTAL

SERIES SMD0503/2 (2 pad housing 5.0x3.2mm)

FEATURES

- + Tight tolerance / tight stability available
- + High reliability for low cost
- + Low profile – 0.75 mm package height
- + Extended temperature range to -40/+125°C available
- + Qualified for automotive applications
- + Excellent clock signal generator for CPU's



PB FREE / ROHS COMPLIANT

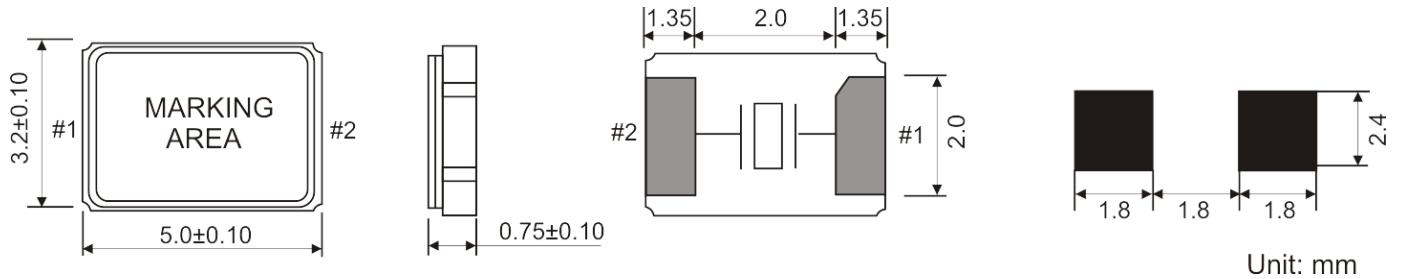
GENERAL DATA

PARAMETERS	PRODUCT FEATURES AND CONDITIONS
SMD-CRYSTAL SERIES	SMD0503/2
NUMBER OF SOLDER PADS	2
FREQUENCY RANGE	8.0 ~ 54.0 MHz AT-Fundamental 54.0 ~ 112.0 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)	5 pF max.
DRIVE LEVEL	200 µW max.
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)	SELECT YOUR REQUIRED CRYSTAL (PRODUCT CONFIGURATOR)

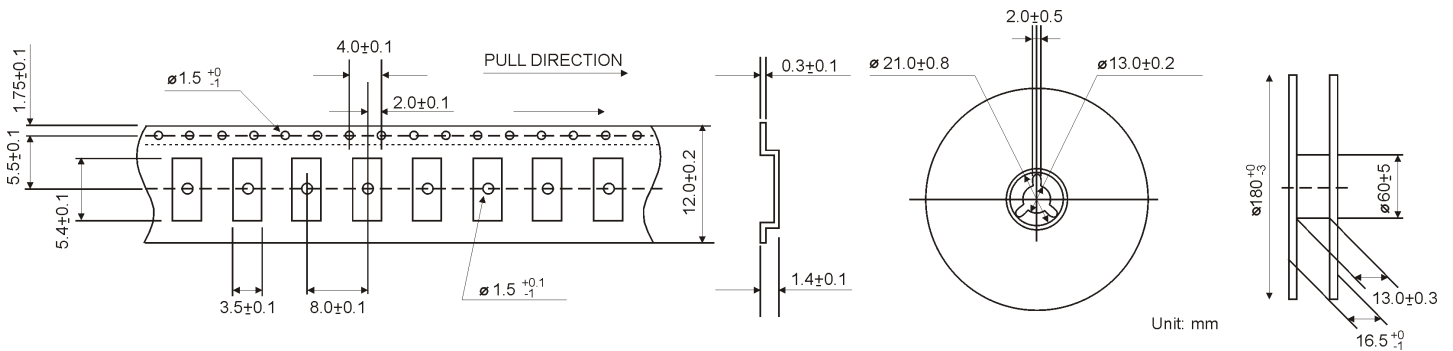
FREQUENCY STABILITY VS. TEMPERATURE

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

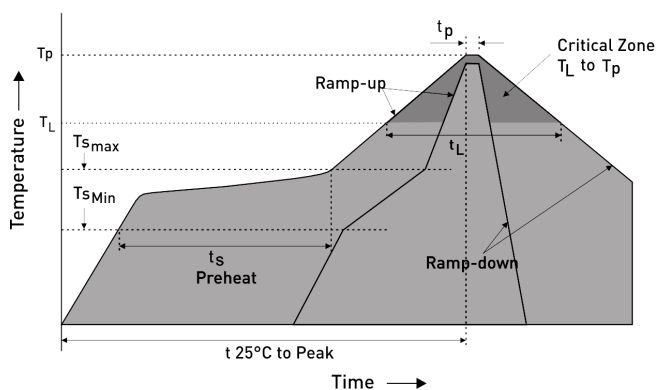
DIMENSIONS



REEL SPECIFICATION



REFLOW SOLDER PROFILE

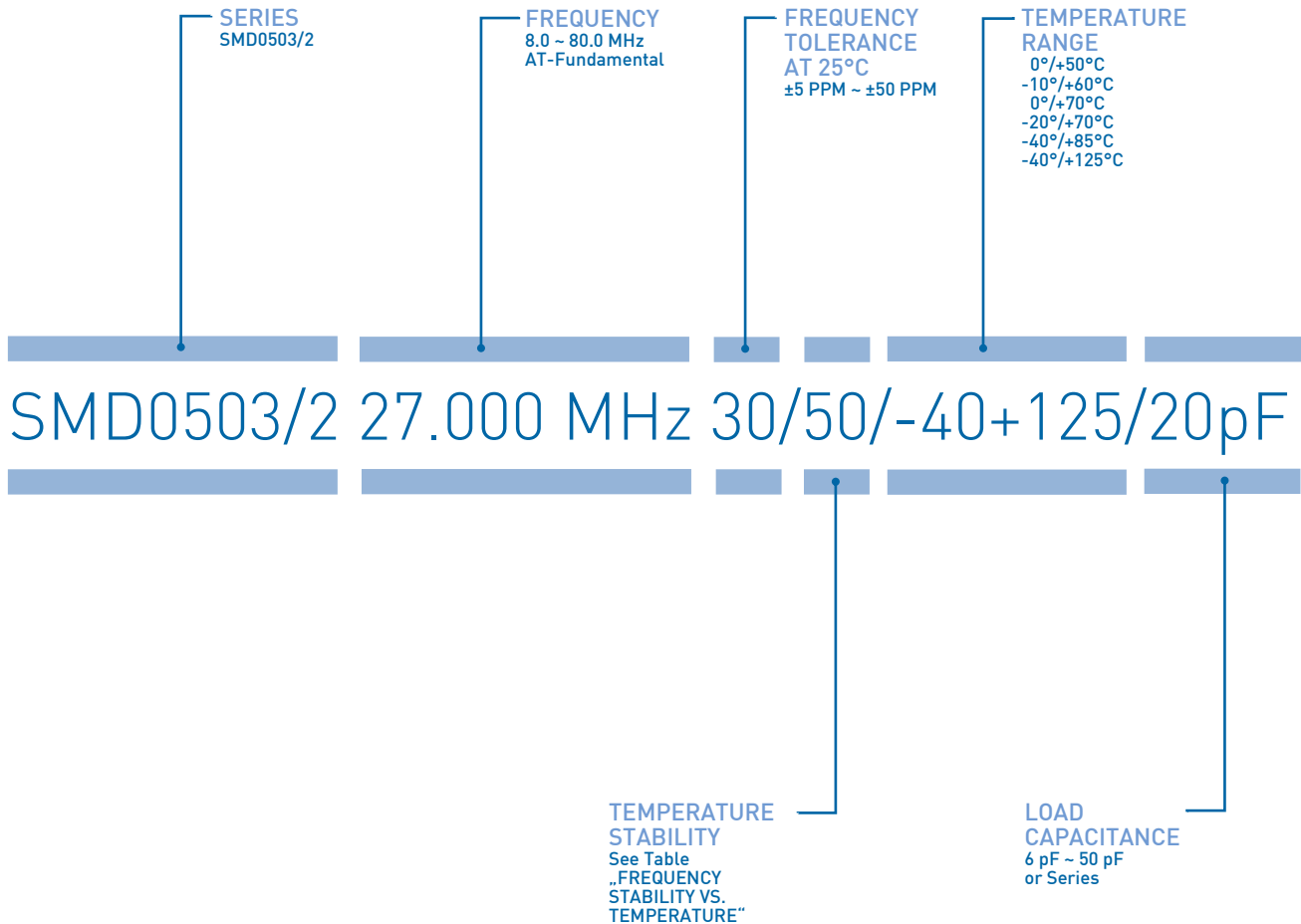


IPC/JEDEC Standard	IPC/JEDEC J-STD-020
Moisture Sensitivity Level	Level 1
TS MAX to TL (Ramp-up Rate)	3°C/second Maximum
Preheat	
- Temperature Minimum (TS MIN)	150°C
- Temperature Typical (TS TYP)	175°C
- Temperature Maximum (TS MAX)	200°C
- Time (ts)	60 - 180 Seconds
Ramp-up Rate (TL to TP)	3°C/second Maximum
Time Maintained Above:	
- Temperature (TL)	217°C
- Time (TL)	60 - 150 Seconds
Peak Temperature (TP)	260°C Maximum
Target Peak Temperature (TP Target)	255°C
Time within 5°C of actual peak (tP)	20 - 40 seconds
Max. Number of Reflow Cycles	2
Ramp-down Rate	6°C/second Maximum
Time 25°C to Peak Temperature (t)	8 minutes Maximum

RESONANCE RESISTANCE

FREQUENCY IN MHz	VIBRATION MODE	ESR MAX. IN Ω
8.0 ~ 16.0 MHz	AT Fund.	80
16.0 ~ 54.0 MHz	AT Fund.	20
54.0 ~ 112.0 MHz	3rd OT AT	80

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 9001:2015 AND 14001:2015

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.