

## SMD QUARTZ CRYSTAL SERIES SMD02016

### FEATURES

- Tight tolerance / tight stability available
- High reliability for low cost
- Low profile – 0.45 mm package height
- Ultra miniature size and lightweight
- Excellent clock signal generator for CPU's

Pb free  
 RoHS-2 2011/65/EU  
 compliant

### GENERAL DATA

SMD-CRYSTAL SERIES	SMD02016/4	(2.0x1.6x0.45 mm)
NUMBER OF SOLDER PADS	4	
FREQUENCY RANGE	20.0 ~ 60.0 MHz AT-Fundamental	
FREQUENCY TOLERANCES AT 25°C	±10 ppm ~ ±50 ppm	
LOAD CAPACITANCE (C <sub>L</sub> )	Series, 8 pF ~ 20 pF (12 pF standard)	
WORKING TEMPERATURE RANGES	-10/+60°C ~ -40/+85°C	
SHUNT CAPACITANCE C <sub>0</sub>	7 pF max.	
DRIVE LEVEL	10 µW (100 µW max.)	
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)	
<b>OTHER PARAMETERS ARE AVAILABLE ON REQUEST / CREATE HERE YOUR SPECIFICATION</b>		

### FREQUENCY STABILITY VS. TEMPERATURE

	±8ppm	±10ppm	±12ppm	±15ppm	±20ppm	±30ppm	±50ppm
0°/+50°C	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-10°/+60°C	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
0°/+70°C	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-20°/+70°C			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-40°/+85°C				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

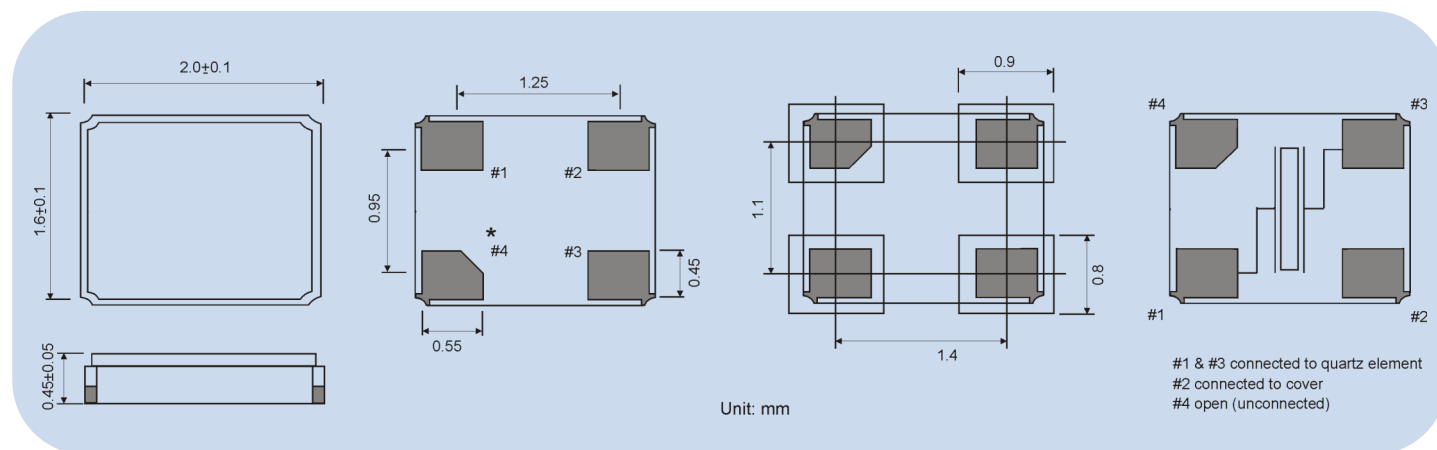
**CRYSTALS**  
**OSCILLATORS**  
**CERAMIC RESONATORS**



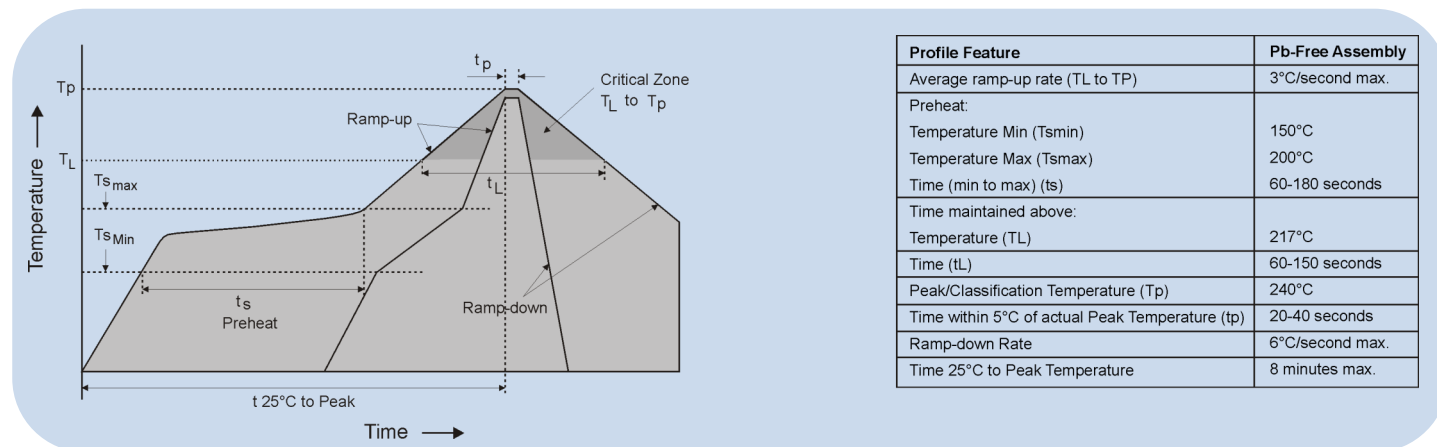
Premium Quality by  
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**CERAMIC FILTERS**  
**SAW COMPONENTS**

## DIMENSIONS



## REFLOW SOLDER PROFILE



## RESONANCE RESISTANCE

Frequency in MHz	Vibration mode	ESR max. in Ω
24.0 ~ 36.0 MHz	AT Fund.	100
36.0 ~ 60.0 MHz	AT Fund.	60

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 Spec.01 • REV.01 • November 2013

## ORDERING INFORMATION

Series	Package Height	Frequency	Frequency Stability at 25°C	Temperature Stability	Temperature Range	Load Capacitance
SMD 02016/4	H = 0.45 mm	40.000 MHz	10	15	-30+85°C	10 pF

Example: SMD02016/4-H 40.000 MHz 10/15/-30+85/10pF  
PLEASE INDICATE YOUR REQUIRED PARAMETERS

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