



## FEATURES

- CHEAPEST AVAILABLE SMD-CRYSTAL IN CERAMIC PACKAGE
- HIGH RELIABILITY FOR LOW COST
- LOW PROFILE - 1.2 MM MAX. PACKAGE HEIGHT
- EXTENDED TEMPERATURE RANGE TO -40/+125°C AVAILABLE
- EXCELLENT CLOCK SIGNAL GENERATOR FOR CPU'S
- QUALIFIED FOR QUOTMOTIVE APPLICATIONS

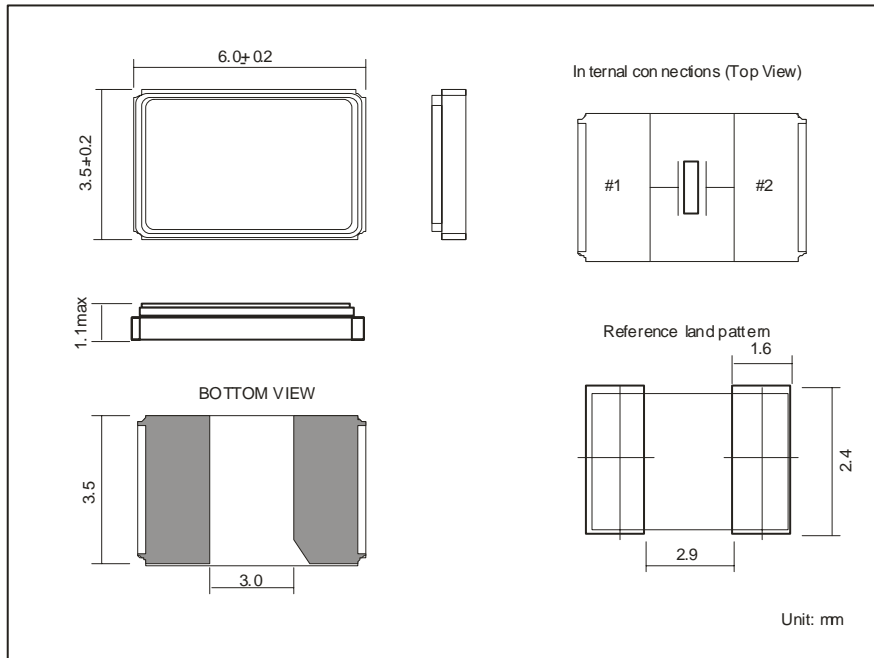
<b>MINI-SMD-CRYSTALS SERIES</b>	<b>SMD0603/2</b>	2 Solder Pads (do not use for new designs)	
	<b>SMD0603/4</b>	4 Solder Pads (please use 4pad crystal - available) # 1 and 3 conected // # 2 and 4 ground	
<b>FREQUENCY RANGE</b>	8.0 ~ 48.0 MHz		32.0 ~ 121.0 MHz
<b>MODE OF VIBRATION</b>	AT-FUNDAMENTAL		3rd Overtone
<b>RESONANCE RESISTANCE</b>	80 ~ 40 Ω max.		80 Ω max.
<b>FREQUENCY TOLERANCE AT 25°C</b>	+5 ppm ~ +-50 ppm		
<b>TEMPERATURE RANGE</b>	0/+50°C ~ -40/+125°C		
<b>TEMPERATURE STABILITY</b>	<b>+3 ppm</b>	0/+50°C	
	<b>+5 ppm</b>	0+50°C / -10/+60°C / -20/+70°C	
	<b>+10 ppm</b>	0+50°C / -10/+60°C / 0/+70°C / -20/+70°C / -40/+85°C	
	<b>+15 ppm</b>	0+50°C / -10/+60°C / 0/+70°C / -20/+70°C / -40/85°C	
	<b>+20 ppm</b>	0+50°C / -10/+60°C / 0/+70°C / -20/+70°C / -40/+85°C	
	<b>+30 ppm</b>	0+50°C / -10/+60°C / 0/+70°C / -20/+70°C / -40/+85°C	
	<b>+50 ppm</b>	0+50°C / -10/+60°C / 0/+70°C / -20/+70°C / -40/+85°C / -40/+125°C	
<b>LOAD CAPACITANCE</b>	6 ~ 50 pF or Series		
<b>SHUNT CAPACITANCE</b>	7 pF max.		
<b>DRIVE LEVEL</b>	0.01 mW ~ 0.1 mW (optional 1.0 mW available)		
<b>AGING</b>	+2 ppm per year (optional +1 ppm available)		
<b>INSULATION RESISTANCE</b>	>500 MΩ DC/100V +-10%		
<b>STORAGE TEMPERATURE</b>	-55/+125°C		
<b>PACKAGE</b>	Tape and Reel (1.000 pcs per reel)		
<b>OTHER PARAMETERS ARE AVAILABLE ON REQUEST / CREATE HERE YOUR SPECIFICATION</b>			

## PART NUMBERING SYSTEM

<b>EXAMPLE</b>	SMD0603/4 27.000 MHz 30/50/-40+85/20pF
----------------	--

TYPE	SMD0603/4
FREQUENCY	IN MHZ
FREQUENCY TOLERANCE AT 25°C	REQUIRED VALUE
TEMPERATURE STABILITY	REQUIRED VALUE
TEMPERATURE RANGE	REQUIRED VALUE
LOAD CAPACITANCE	REQUIRED VALUE

**OUTLINE DRAWING OF SMD0603 WITH 2 SOLDER PADS**  
(please do not use 2pad package for new designs – will become obsolete)



**OUTLINE DRAWING OF SMD0603 WITH 4 SOLDER PADS**  
(please use the standard 4pad package – it is always available)

