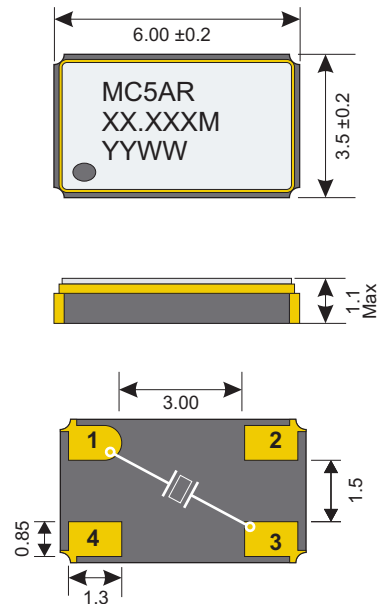




## Specifications

<b>Package</b>		MC5AR
<b>Frequency Range (fo)</b>		8.000MHz ~ 80.000MHz
<b>Mode of Operation</b>		AT Fundamental/3rd Overtone
<b>Frequency Stability</b>	<b>Calib. Tol. @ 25°C</b>	±50ppm
	<b>Temp. Range</b>	±50ppm
	<b>Aging/Year (fa)</b>	±2ppm (1st year std.)
<b>Temp. Range</b>	<b>Operating (TOPR)</b>	-10°C ~ +60°C
	<b>Storage (TSTG)</b>	-55°C ~ +125°C
<b>Drive Level (DL)</b>		0.1mW~0.5mW Max
<b>Capacitance</b>	<b>Load (CL)</b>	18pF
	<b>Shunt (CO)</b>	5pF Max
<b>Equiv. Series Resist. (R1)</b>		Varies per frequency (see chart)

## Dimensions (mm)

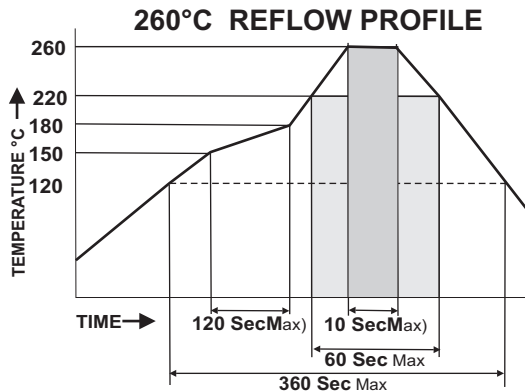
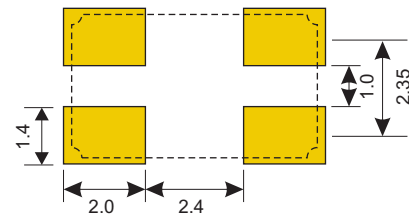


## Equivalent Series Resistance (E.S.R.) Max

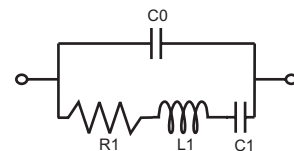
8.000 ~ 9.999MHz	AT-Cut Fund.	70Ω
10.000 ~ 30.000MHz	AT-Cut Fund.	40Ω
30.000 ~ 50.000MHz Fundamental is default. Use the O3 option for 3rd OT	AT-Cut Fund.	40Ω
	AT-Cut 3rd O.T.	60Ω
50.000 ~ 80.000MHz	AT-Cut 3rd O.T.	50Ω

ESR and mode default to those specified above for the frequency requested..

## Recommended Pad (mm)



## Equivalent Circuit



- C0 Shunt Capacitance
- R1 Equivalent Series Resistance
- L1 Motion Inductance
- C1 Motion Capacitance



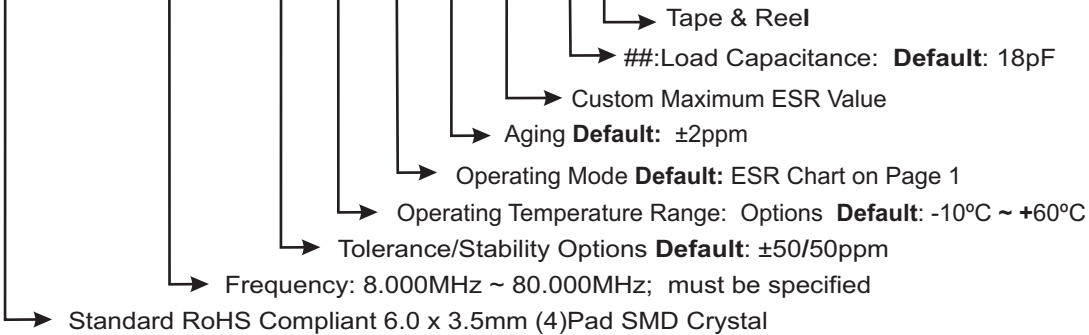
## Environmental And Mechanical

<b>Temperature</b>	10 Cycles of -30°C (30Mins), Normal (1Hr), 85°C (30Mins), Normal (1Hr)
<b>Shock</b>	Accelerated at 1000G for 1mS in each perpendicular axis.
<b>Vibration</b>	4 Cycles of 20G acceleration at 20 - 2,000Hz within 4 Minutes in each perpendicular axis.
<b>Solder</b>	Peak Temperature of 260°C Max for 10 Seconds with preheat of 160°C for 90±10% for 10 Seconds for a Maximum of 2 Cycles.

## Part Number

**MC5AR - XX.XXX M-CX RX OX AX ZX-XX T**

<b>Tolerance Stability</b>		<b>Temp Range</b>		<b>Load Cap</b>	
C1	10ppm/10ppm	R1	0°C ~ +50°C	##	Custom Load
C2	10ppm/20ppm	R2	-10°C ~ +60°C	S	Series
C3	10ppm/30ppm	R3	-10°C ~ +70°C	<b>Aging</b>	
C4	10ppm/50ppm	R4	-20°C ~ +70°C	A1	1ppm/year Max
C5	15ppm/20ppm	R5	-30°C ~ +80°C	A3	3ppm/year Max
C6	20ppm/20ppm	R6	-40°C ~ +85°C	A4	4ppm/year Max
C7	20ppm/30ppm	R7	-5°C ~ +55°C	AC	Custom Aging
C8	20ppm/50ppm	RC	Custom Temp.	<b>Options</b>	
C9	30ppm/30ppm	<b>Mode</b>		T	
C10	30ppm/50ppm	O3	AT-Cut 3rd O/T	Tape & Reel	
C11	40ppm/45ppm	<b>E.S.R</b>			
C12	50ppm/100ppm	Z###	Cust. Max ESR		
SC	Cust. Stability				



Example: **MC5AR-27.000M-T** 27.000MHz, ±50/50ppm, fundamental Xtal with ESR of 40Ω, operating at -10°C ~ +60°C, and delivered on Tape & Reel  
 Example: **MC5AR-32.000M-C10R6O3-T** 32.000MHz, ±30/50ppm 3rd O.T. Xtal with ESR of 60Ω, operating at -40°C ~ +85°C and delivered on Tape & Reel  
 Example: **MC5AR-27.000M-C10R6-20T** 27.000MHz, ±30/50ppm AT Fundamental Xtal with 20pF Load, ESR of 40Ω, operating at -40°C ~ +85°C, and delivered on Tape & Reel

## Tape & Reel

