

MINIATURE CERAMIC SMD CRYSTAL (5.0 x 3.2 x 1.0mm)

FEATURES:

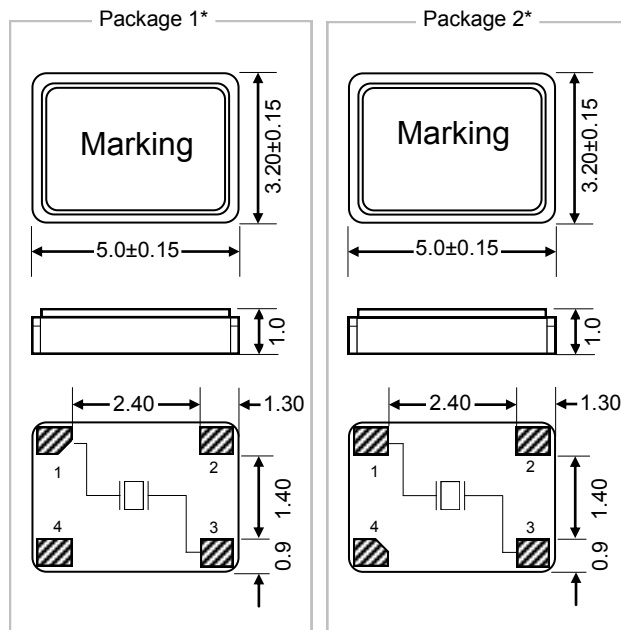
- HIGH FREQUENCY RANGE
- LOW COST SMD PACKAGE
- LOW PROFILE / SUITABLE FOR REFLOW



■ SPECIFICATION

FREQUENCY RANGE	7.3728MHz ~ 270.000MHz
FREQUENCY TOLERANCE @ 25°C	±30ppm (See P/N guide for other options)
FREQUENCY STABILITY	±50ppm (See P/N guide for other options)
OPERATING TEMPERATURE	STD: 0°C ~ 70°C, Option: -40°C ~ 85°C (See P/N guide for other options)
STORAGE TEMPERATURE RANGE	-55°C ~ 105°C
LOAD CAPACITANCE	STD: 18pF (See P/N guide for other options)
SHUNT CAPACITANCE	5.0pF max.
INSULATION RESISTANCE	500MΩ min. @ 100V _{DC} ± 15V _{DC}
DRIVE LEVEL	500μW max.
AGING @ 25°C ± 3°C	±3.0ppm / 1 st year max.
EQUIVALENT SERIES RESISTANCE	Fundamental: 7.000MHz ~ 10.000MHz: 100Ω max. 10.001MHz ~ 12.000MHz: 60Ω max. Fundamental: 12.001MHz ~ 19.000MHz: 50Ω max. 19.001MHz ~ 40.000MHz: 40Ω max. 3rd overtone: 40.001MHz ~ 60.000MHz: 70Ω max. 60.001MHz ~ 170.000MHz: 100Ω max. 5th overtone: 170.001MHz ~ 270.000MHz: 160Ω max.
OPERATION MODE	Fundamental, 3 rd overtone, 5 th overtone

■ PACKAGE DIMENSIONS

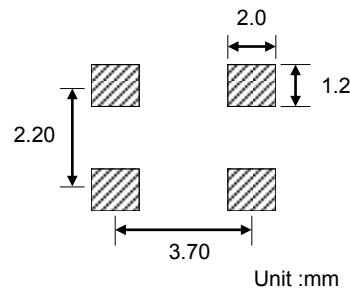


* Package 1 and 2 are provided interchangeably based on material availability.
 ** Different chamfer location between package 1 and 2.

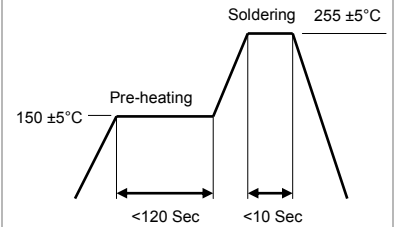
Unit : mm

Pin Configuration	
1	Xtal
2	GND
3	Xtal
4	GND

■ SOLDER PATTERN



■ REFLOW PROFILE



Note: Consult factory for detail

■ PART NUMBERING GUIDE

CS53A - F - 30 - 50 - HM - 18 - 40.000M - TR

Mode

F: Fundamental
 T: 3rd overtone
 B: 5th overtone

Stability

00: ± 100ppm
 50: ± 50ppm
 25: ± 25ppm
 15: ± 15ppm
 10: ± 10ppm
 XX: Two digit for Stability

Load Capacitance

08: 8pF 20: 20pF
 10: 10pF 22: 22pF
 12: 12pF 24: 24pF
 16: 16pF 28: 28pF
 18: 18pF 32: 32pF
 S: Series

Other Options

TR: Tape and reel

Frequency

M: MHz

Tolerance @ 25°C

00: ± 100ppm
 50: ± 50ppm
 30: ± 30ppm
 25: ± 25ppm
 10: ± 10ppm
 XX: Two digit for Tolerance

Operating Temperature

A: -55	F: -20	M: 70	S: 100
B: -50	G: -10	N: 75	T: 105
C: -40	H: 0	P: 80	U: 125
D: -35	J: 50	Q: 85	X: custom
E: -30	K: 60	R: 90	