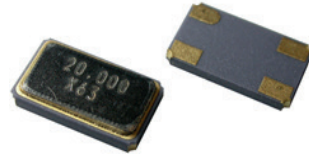


X63 CERAMIC SURFACE-MOUNT CRYSTAL

FEATURES

- Not recommended for new designs
- Small SMD package, 4 pad version
- Excellent heat resistance & shock resistance
- Applications: PDA, Computers, Microprocessors

6.0 x 3.5 x 1.1 mm



Item	Symbol	Specification
Frequency Range	Fo	7.0 MHz ~ 160 MHz
Operation Mode		7.0 MHz ~ 54.0 MHz Fundamental (see options) 45.0 MHz ~ 160 MHz 3rd-overtone (see options)
Operating temperature Range	To	-20° to +70° C (see options)
Frequency Tolerance at 25°C	Δf/F	± 50ppm max. (see options)
Temperature Stability	Δf/F	± 50ppm max. (see options)
Load Capacitance (CL)	CL	series or 6 pF to 50 pF (see options)
Equivalent Series Resistance	ESR	See Table 1
Shunt Capacitance (Co)	Co	7pF Max
Insulation Resistance	Ri	500 MΩ min. (at 100Vdc)
Drive Level	DL	100μW typical, 300μW max.
Aging	Δf/F	±3ppm max (at 25° C, first year)
Packing Unit		1000pcs / reel
Soldering Condition		260° C, 10 sec x2 max
		Customer specifications on request

TABLE 1: Standard ESR

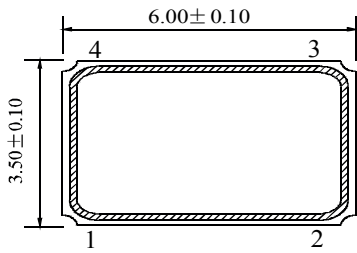
Frequency (MHz)	ESR (Ω) max.	Frequency (MHz)	ESR (Ω) max.
7.0 - 7.99	100	45.0 - 160.0, 3rd overtone	70
8.0 - 11.9	80		
12.0 - 15.9	50		
16.0 - 54.0	40		

OPTIONS & ORDERING INFORMATION

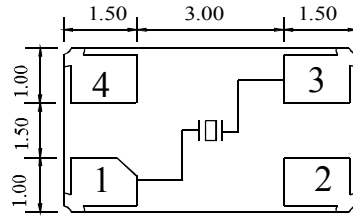
X63-	- MHz
	Freq. Tolerance	Freq. Stability	Operating Temp.	Load Capacitance	Mode	ESR if other than STD	Frequency in MHz
	10 = ±10 ppm	10 = ±10 ppm	D = -10° / +60°C	Please specify CL in	F = Fundamental	Specify a value in Ω	Please specify the
	15 = ±15 ppm	15 = ±15 ppm	E = 0° / +70°C	pF or S for Series	D = 3rd overtone		frequency in MHz
	20 = ±20 ppm	20 = ±20 ppm	F = -20° / +70°C				
	25 = ±25 ppm	25 = ±25 ppm	G = -30° / +75°C				
	30 = ±30 ppm	30 = ±30 ppm	H = -30° / +85°C				
	50 = ±50 ppm	50 = ±50 ppm	K = -40° / +85°C				

* Note : Not all combinations are possible, please consult us.

OUTLINE DIMENSIONS



Top View



Recommended Solder Pattern

