QEHC49H3

HC49/S Crystal – Through Hole packaged

Frequency and Electrical Characteristics

Parameter	Min.	Typ.	Max.	Unit	Test condition / Description
Nominal frequency (Fn)	3.200		66.000	MHz	
Calibration tolerance			±10 to ±50	ppm	Frequency at 25°C ± 2°C and specified load capacitance
Operating temperature range		-20 to +70	-40 to +85	°C	Refer to ordering information
Storage temperature range	-40		85	°C	
Frequency stability over temperature			±10 to ±50	ppm	Referenced to frequency reading at 25°C and the specified load capacitance
Long-term stability (Aging)			±5	ppm	Frequency drift over 1 year at 25°C
Shunt capacitance (CO)			7.0	pF	
Load capacitance (CL)	10		32 or series	pF	Refer to ordering information
Drive level		100	500	µW	
Equivalent series resistance (ESR) 3.200 to 4.499 4.500 to 5.999 6.000 to 6.999 7.000 to 7.999 8.000 to 8.999 9.000 to 9.999 10.000 to 12.999 13.000 to 30.000 30.000 to 66.000			 150 120 100 90 80 60 50 40 80	Ω	Mode of vibration: Fundamental (AT-cut) Fundamental (AT-cut) Fundamental (AT-cut) Fundamental (AT-cut) Fundamental (AT-cut) Fundamental (AT-cut) Fundamental (AT-cut) 3rd Overtone (AT-cut)
Insulation resistance (IR)	500			MΩ	100 V ±15 V at 25°C

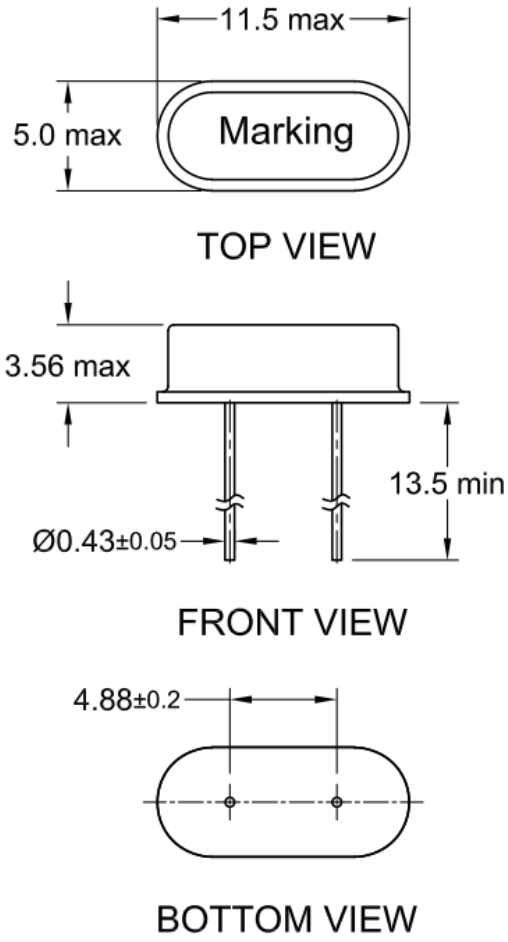
Environmental Specifications

Parameter	Test condition / Description
Mechanical vibration	10g, Frequency: 10Hz ~ 2KHz according to standard CEI 68-2-63
Shock	100g, 6ms according to standard CEI 68-2-27

Order Part Example – QEHC49H3.1.30.HQ.50.16 / 25.000MHz

Parameter	Package type	Vibration mode	Frenquency tolerance	Operating temperature range	Frenquency stability	Load capacitance	Nominal Frenquency (MHz)
Code	QEHC49H3	1	10	HQ	10	16	25.000MHz
Decode	QEHC49H3 = HC49/S (Through Hole Package)	1 = Fundamental 3 = 3rd Overtone 5 = 5th Overone	10 = ±10ppm 30 = ±30ppm 50 = ±30ppm	D = -40°C F = -30°C H = -20°C L = 0°C Q = +70°C T = +85°C	10 = ±10ppm 30 = ±20ppm 50 = ±30ppm	16 = ±16pF	Please enter the nominal frequency

Model Outline, Recommended Pad Layout and Marking

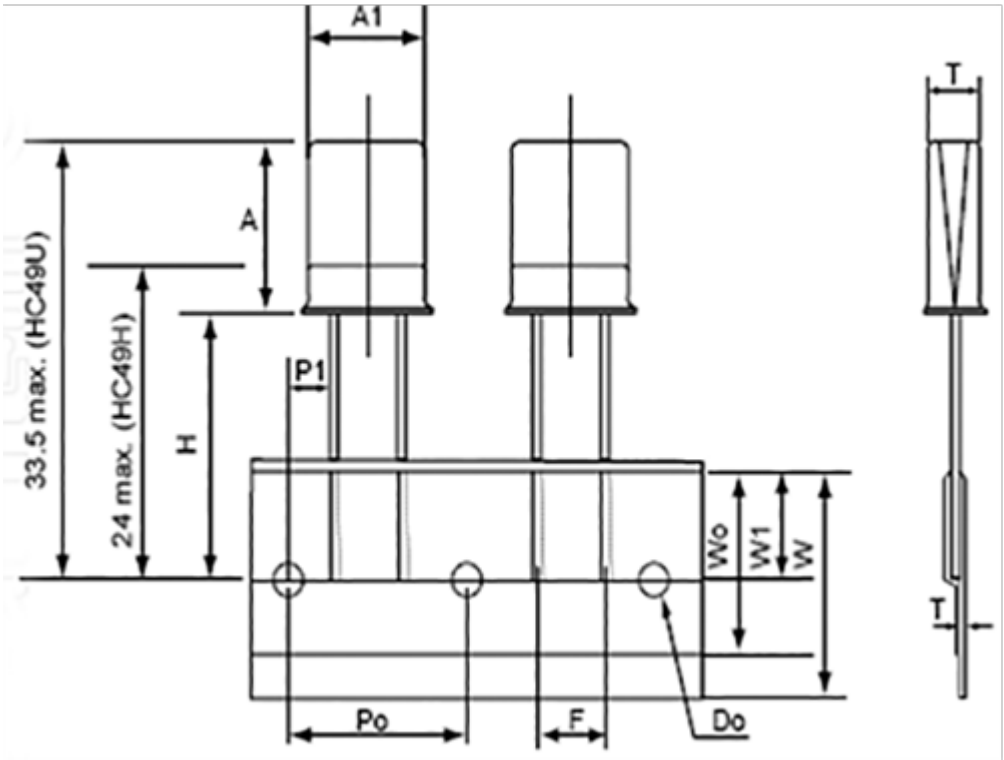


Marking		Example: QEHC49H3.1.10.HQ.10.16 / 25MHz
Line 1	Frequency in MHz (6 digits)	25.000
Line 2	On top	T233

NOTE: Dimensions are in millimetre.

Packaging

TAPE DETAILS:



Parameter	Code	Dimension	Tolerance
Product size	A1 x A	11.05x13.46 max	
Product thickness	T	4.65 max	
Feed hole location	P1	3.81	± 0.7
Feed hole pitch	P0	12.7	± 0.3
Lead span	F	5.0	± 0.5
Tape width	X	18.0	± 1.0
Cover tape width	W0	12.7	± 1.0
Tolerance of leading hole	W1	9.0	± 0.5
Masking tape location	H	20.0	± 0.5
Feed hole diameter	D0	4.0	± 0.2
Tape thickness	t	0.6	± 0.2