



QEUM5 / QEUM5-GW

UM5 Crystal – Through Hole & Gull Wing SMD packaged
Specification (Rev-C)

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October 03rd, 2006

Electrical Characteristics

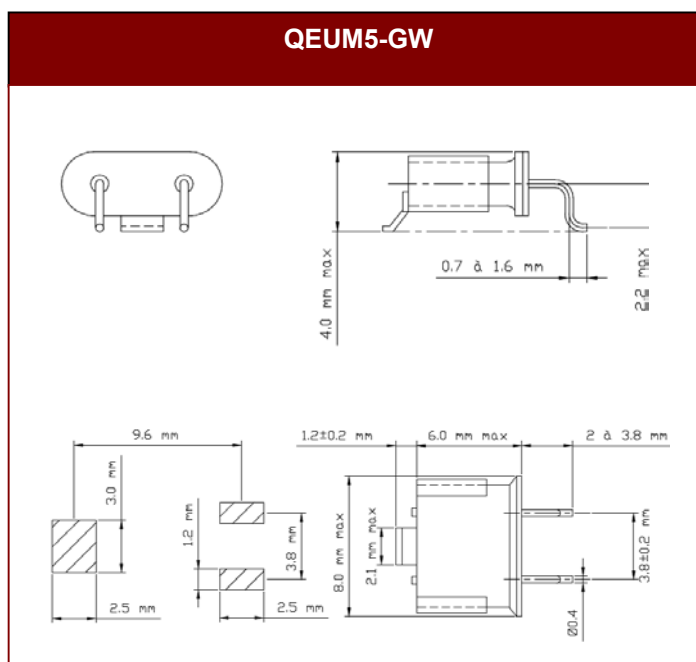
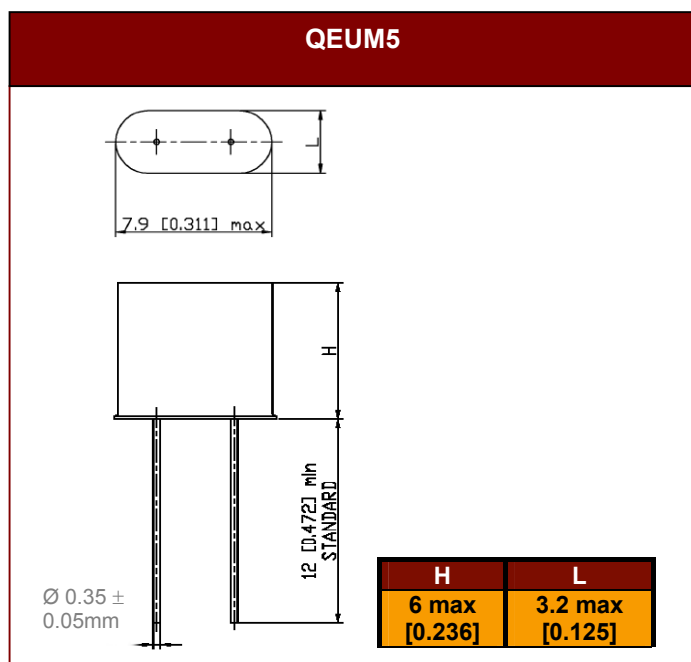
Electrical Parameters	Unit	Minimum	Typical	Maximum	Test conditions
Frequency range	MHz	10		200	
Frequency Tolerance (at 25°C)	± ppm	10	30	50	Refer to Ordering Information
Temperature Stability	± ppm	10	30	50	Refer to Ordering Information
Operating Temperature Range	°C		-20/+70	-40/+85	Refer to Ordering Information
Storage temperature range	°C	-40		+85	
Shunt capacitance C ₀	pF			7.0	
Load capacitance	pF	10pF ~ 32pF or series			Refer to Ordering Information
Drive level	μW		100	500	
Aging (First Year)	± ppm			3	Ref at 25°C
Insulator resistance	MΩ	500			At 100V _{DC}

Customized specification upon request

ESR vs. frequency range and Mode of vibration

Frequency range (MHz)	Mode of vibration	Max ESR (Ω)	Frequency range (MHz)	Mode of vibration	Max ESR (Ω)
10.000 to 19.999	Fund.	60	80.000 to 105.000	3rd	80
20.000 to 40.000	Fund.	40	60.000 to 129.999	5th	200
30.000 to 79.999	3rd	100	130.000 to 200.000	7th	180

Mechanical Characteristics



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	Marking for QEUM5	Marking for QEUM5-GW
Line 1	VRDxxx (Temex code)	VRSxxx (Temex code)
Line 2	Frequency in MHz (6 digits)	Frequency in MHz (6 digits)
Line 3	YYWW – production code	YYWW – production code

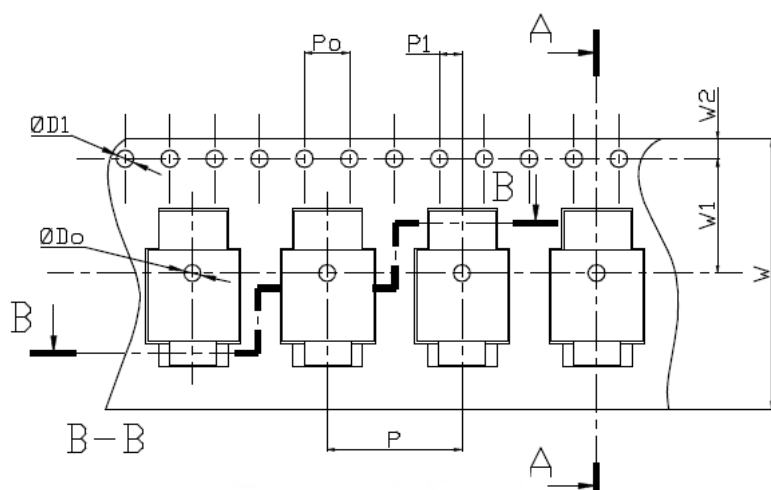
Mechanical conditions	
Vibration	10g, 10Hz to 2KHz according to standard CEI 68-2-63
Shocks	100g, 6ms according to standard CEI 68-2-27

Note : QEUM5 & QEUM5-GW are fully RoHS compliant.

Ordering Information

Part numbering system						
QEUM5	1	30	HQ	50	16	25.000MHZ
↓	↓	↓	↓	↓	↓	↓
Package type	Vibration mode	Frequency tolerance	Operating temperature range	Frequency stability	Load Capacitance	Nominal Frequency (MHz)
QEUM5 : UM5 Through Hole packaged QEUM5-GW : UM5 Gull Wing SMD packaged	1 = Fundamental 3 = 3 rd Overtone 5 = 5 th Overtone 7 = 7 th Overtone	10=±10ppm 30=±30ppm 50=±30ppm	D=-40°C F=-30°C H=-20°C J=-10°C L=0°C M=+50°C N=+55°C O=+60°C Q=+70°C T=+85°C	10=±10ppm 30=±20ppm 50=±30ppm	16=16pF Please, enter the value of load capacitance	Please enter the nominal frequency

QEUM5-GW Tape Drawing



Item	Symbol	Dimensions
Pitch of components	P	12 ± 0.1
Pitch of sprocket hole	P ₀	4 ± 0.1
Length from hole to component center	P ₁	2 ± 0.1
Width of carrier tape	W	24 ± 0.3
Width of adhesive tape	W ₁	11.5 ± 0.1
Gap of hold down tape	W ₂	1.75 ± 0.1
Diameter of feed hole	D ₀	Ø 1.5 min
Diameter of sprocket hole	D ₁	Ø 1.5 ± 0.1

Note 1 : Metal Clips are opposed to the sprocket holes.

Note 2 : Multiple is 1Kpcs per reel.