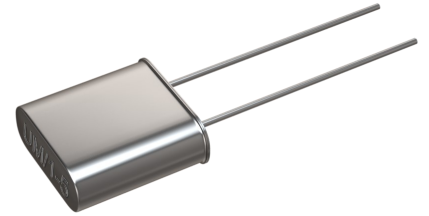


# THT QUARTZ CRYSTAL

## SERIES UM1/UM5

### FEATURES

- + High reliability for low cost
- + Tight frequency stabilities possible
- + Extended temperature range to  $-40/+125^{\circ}\text{C}$  available
- + Excellent clock signal generator for CPU's
- + Cheapest available crystal with tight tolerances up to 200 MHz



ROHS-2 2011/65/EU COMPLIANT

### GENERAL DATA

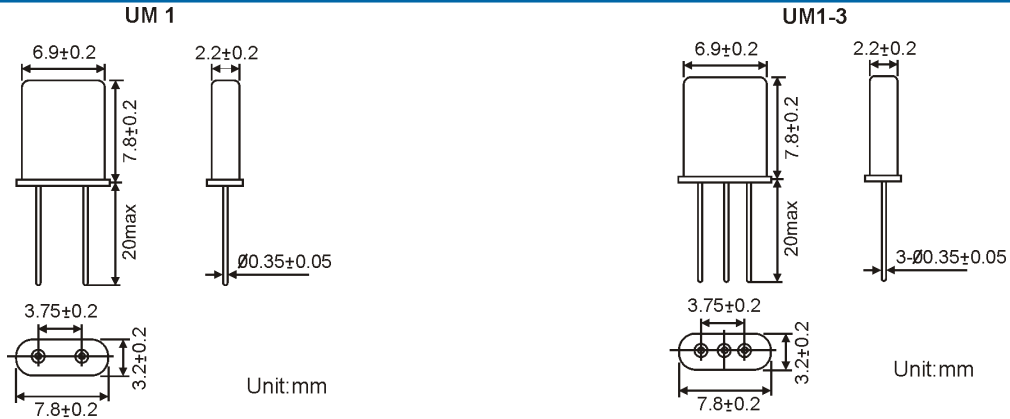
PARAMETERS	PRODUCT FEATURES AND CONDITIONS
THT-CRYSTAL SERIES	UM1/UM5
NUMBER OF LEADS	2 = standard 3 = optional
FREQUENCY RANGE	6.0 ~ 45.0 MHz AT-FUNDAMENTAL 30.0 ~ 100.0 MHz 3rd Overtone 80.0 ~ 155.0 MHz 5th Overtone 120.0 ~ 200.0 MHz 7th Overtone
FREQUENCY TOLERANCES AT 25°C	$\pm 5$ ppm ~ $\pm 50$ ppm
LOAD CAPACITANCE (C <sub>L</sub> )	6 pF ~ 50 pF or Series
WORKING TEMPERATURE RANGES	0/+50°C ~ -40/+125°C
SHUNT CAPACITANCE (C <sub>0</sub> )	7 pF max.
DRIVE LEVEL	100 $\mu\text{W}$ typical (0.07 mW ~ 1 mW possible on request)
AGING	$\pm 3$ ~ $\pm 5$ ppm per year standard ( $\pm 1$ or $\pm 2$ ppm available as option)
INSULATION RESISTANCE	>500 M $\Omega$ DC/100V $\pm 10\%$
STORAGE TEMPERATURE	-55°/+125°C
DELIVERY FORM	Bulks standard
OPTIONS FOR THT	Insulator Cutted leads Tape and Reel (Paper tape 1.000 pcs per reel)

[OTHER PARAMETERS ARE AVAILABLE ON REQUEST / CREATE HERE YOUR SPECIFICATION](#)

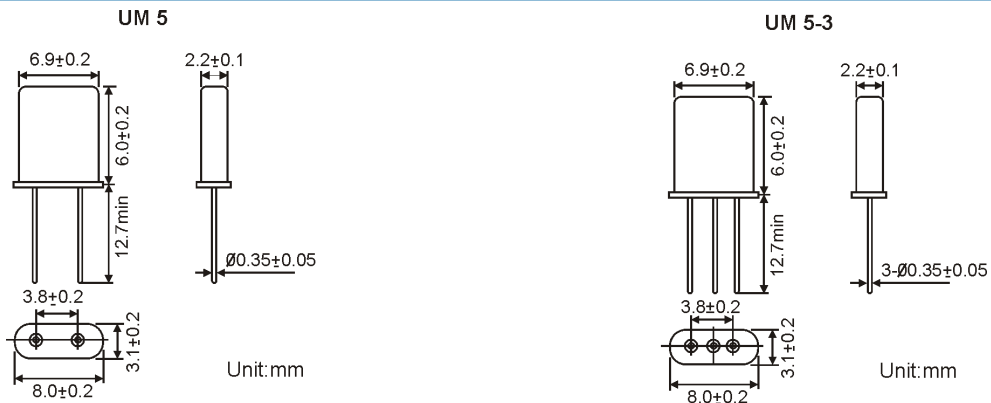
### FREQUENCY STABILITY VS. TEMPERATURE

	$\pm 3\text{ppm}$	$\pm 5\text{ppm}$	$\pm 10\text{ppm}$	$\pm 20\text{ppm}$	$\pm 30\text{ppm}$	$\pm 50\text{ppm}$
0°/+50°C	+	+	+	+	+	+
-10°/+60°C	+	+	+	+	+	+
0°/+70°C		+	+	+	+	+
-20°/+70°C		+	+	+	+	+
-40°/+85°C			+	+	+	+
-40°/+125°C						+

## DIMENSIONS OF UM1/UM1-3



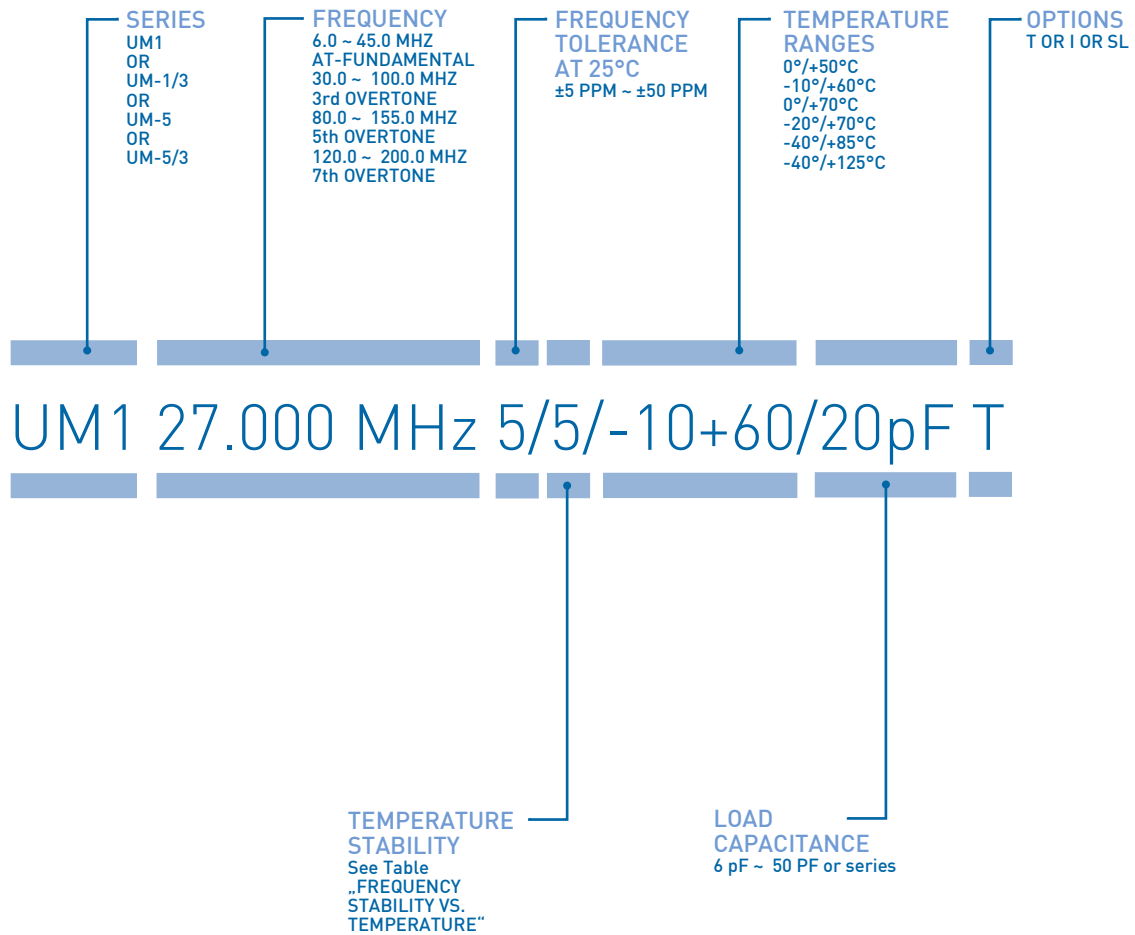
## DIMENSIONS OF UM5/UM5-3



## RESONANCE RESISTANCE

FREQUENCY IN MHZ	VIBRATION MODE	ESR MAX. IN $\Omega$
6.0 ~ 45.0 MHz	AT Fund.	60 ~ 120
30.0 ~ 100.0 MHz	3rd Overtone	60 ~ 120
80.0 ~ 155.0 MHz	5th Overtone	60 ~ 120
120.0 ~ 200.0 MHz	7th Overtone	60 ~ 120

## ORDERING INFORMATION



EXAMPLE: UM1 27.000 MHz 5/5/-10+60/20pF/T  
PLEASE INDICATE YOUR REQUIRED PARAMETERS

### OPTIONS FOR THT

BLANK	= No options
T	= Tape and reel (only for 2 lead housing)
I	= Insulator (for 2+3 lead housing)
SL	= Short leads (only for 2 lead housing)

### REMARK: OPTIONS COMBINATIONS

T+I	= can be combined
I+SL	= can be combined
SL	= can not be delivered in tape and in reel



## PREMIUM QUALITY BY PETERMANN-TECHNIK



OUR COMPANY IS CERTIFIED ACCORDING TO ISO 9001:2008 IN OCTOBER 2013 BY THE DMSZ CERTIFIKATION GMBH.

THIS IS FOR YOU TO ENSURE THAT THE PRINCIPLES OF QUALITY MANAGEMENT ARE FULLY IMPLEMENTED IN OUR QUALITY MANAGEMENT SYSTEM AND QUALITY CONTROL METHODS ALSO DOMINATE OUR QUALITY STANDARDS.