



Specification for a 3.7 x 8.0mm Through Hole Crystal
MtronPTI Part Number: M1380S001



I. Electrical Specifications

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Mode of Oscillation		Fundamental (AT-cut)				
Frequency	F_0		17.5000000		MHz	
Frequency Calibration Tolerance	$\Delta F / F$	-50		+50	ppm	@ +25°C, $C_L = 20$ pF
Frequency Stability vs. Operating Temperature	$\Delta F / F_0$	-100		+100	ppm	Referenced to frequency +25°C, Over -55°C to +125°C
Operating Temperature	T_A	-55		+125	°C	
Aging		-5		+5	ppm/year	@ +25°C
Load Capacitance	C_L		20		pF	
Resistance	R_S		25	50	Ω	
Shunt Capacitance	C_0		2.3	2.6	pF	
Motional Capacitance	C_1		7.3		fF	
Motional Inductance	L_1		11.3		mH	
Drive Level	D_L		100	500	μW	
Insulation Resistance		500			M Ω	

II. Environmental & Package Specifications

Storage Temperature	-55°C to 125°C
Mechanical Shock	5000g, 0.3 ms, ½ sine
Vibration	20g / 10-2000 Hz
Gross Leak	Per MIL-STD-202, Method 112 (30 sec. Immersion)
Fine Leak	Per MIL-STD-202, Method 112 (1 x 10 ⁻⁸ atm cc/s of Helium)
Resistance to Solvents	Per MIL-STD-883 Method 2015
Solderability	Per EIAJ-STD-002
Max. Soldering Conditions	+260°C for 10 secs.
Package	3.7 x 8.0 x 1.75 mm Ceramic with leads

III. Marking:

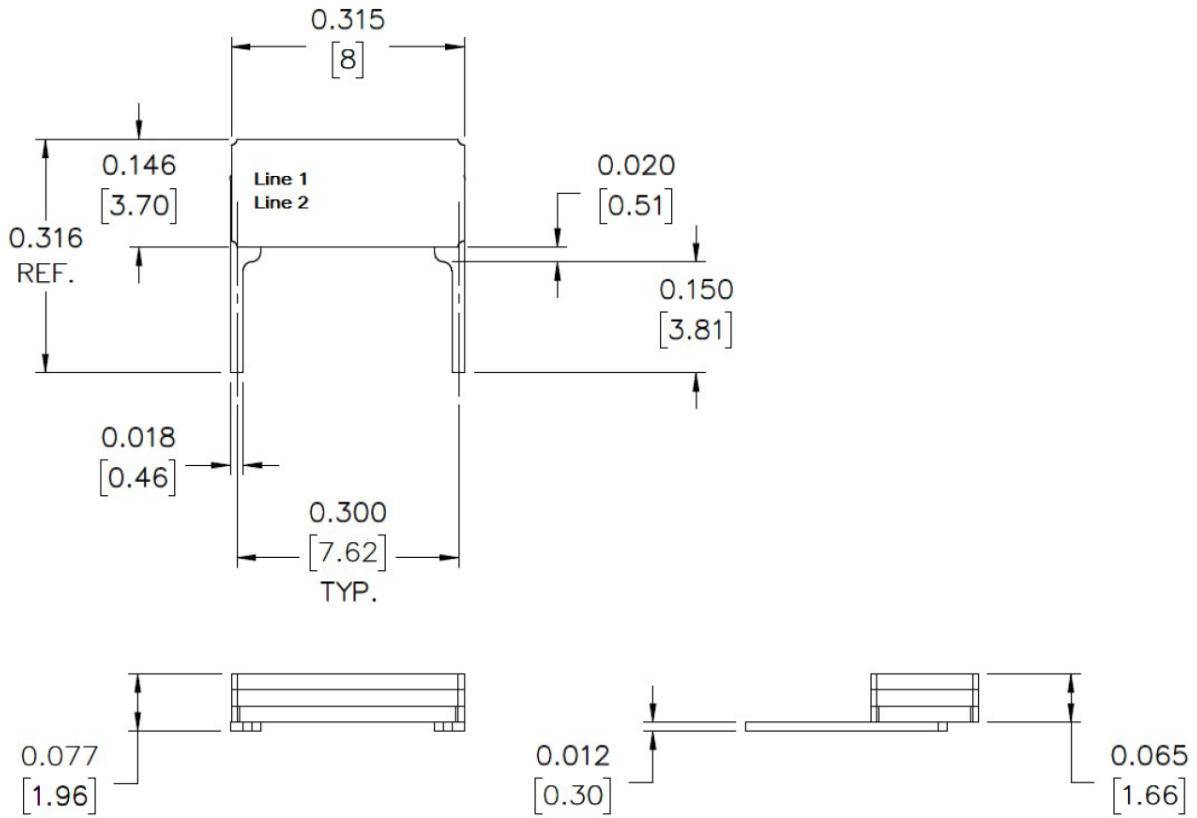
Part Marking	
Line 1	17M500
Line 2	M Y WW V

Legend	
M	MtronPTI
Y	Year
WW	Week
V	Vendor



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IV. Dimensions:



V. Datasheet Revision Table

Date	Rev.	Author	Details of Revision
06-05-19	A	BRR	Preliminary Release
08-27-19	B	DCO	Revised parameter names for clarity; revised C0 spec; added typ. C1 and L1.