A – 15.75D **x 3.93**H **(mm)**
B – 15.75D **x 6.73**H **(mm)**

PDI *TS-Series* is a cold-welded hermetically sealed quartz crystal in a TO8 through-hole package. This crystal, designed to meet your most demanding specification, is available in standard or custom frequencies and/or with customized parameters. PDI provides quick-turn sampling for your proto-typing needs, mass production capability, and competitive pricing.

ex) **TS—25000X—F—B—C—B—18—A—X**[*]

FREQUENCY
08000X – 99999X =
8.0000MHz -
99.999MHz -
C10000 – C20000 =
100.00MHz -
200.00MHz -

MODE
F = Fundamental
3 = 3rd Overtone
5 = 5th Overtone

TOLERANCE @ 25°C
A = ±10
B = ±25
C = ±50
S = Special

FREQUENCY STABILITY *
B = ±25
C = ±50
E = ±100
S = Special

OPERATING TEMPERATURE
A = 0 to +70°C
B = -20 to +70°C
D = -40 to +85°C
E = -55 to +125°C
S = Special

LOAD
08-99 = pF
SE = Series

HEIGHT
A = 3.93 (mm)
B = 6.73 (mm)
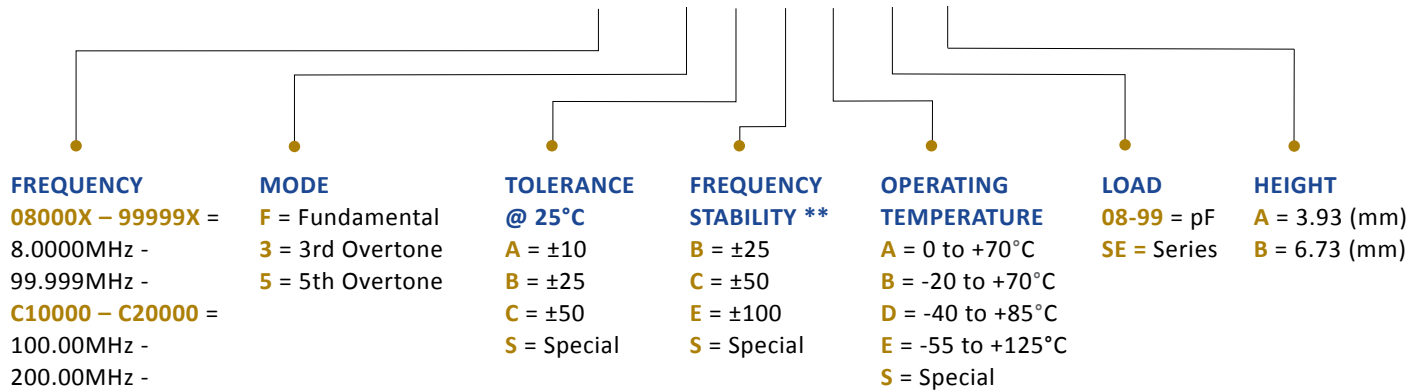
** - AT-Cut Only.   *(X) for standard or assigned for custimization.

Parameter (AT-Cut)		Mode			
		Fundamental	3rd Overtone	5th Overtone	Units
Frequency Range		3.0000 to 25.0000	8.0000 to 50.0000	50.0000 to 100.0000	MHz
Frequency Tolerance	@ +25°C	Per Option			ppm
Temperature Range	Operating	Per Option			°C
	Storage	- 55 to +125			°C
Frequency Stability (AT-Cut Only)	Over Operating Temperature	Per Option			ppm
Turning Point (Typical) (Doubly Rotated Cuts Only)		+55 to +105 (Mode, Cut, Frequency Dependent)			°C
Equivalent Series Resistance (AT-Cut) (Max)	3.000000 to 25.000000 MHz	50			Ω
	8.000000 to 50.000000 MHz		50		
	50.000000 to 100.000000 MHz			90	
Equivalent Series Resistance (Doubly Rotated Cuts) (Max)	3.000000 to 25.000000 MHz	60			Ω
	8.000000 to 50.000000 MHz		60		
	50.000000 to 100.000000 MHz			110	
Drive Level (Typical)		100			uW
Shunt Capacitance (Maximum)		7.0			pF
Load Capacitance (Typical)		Per Option			pF
Aging (Per Year Max)	AT-Cut	±1.0			ppm
	Doubly Rotated Cuts	±0.5			
Seal Method		Cold Weld			
Insulation Resistance		500MΩ Minimum @100Vdc ±15V			

PACKAGE DIMENSIONS

Decimal XXX = ± .008, XX = ± .02 Metric [XXX = ± .20], [XX = ± .50]

PIN	CONNECTION
1	Crystal
2	No Connect
3	Crystal
4	No Connect
5	Ground

FREQUENCY
PDI P/N
DATE CODE

Traceability Code

.620 Max.
[15.75 Max.]

.515 Max
[13.08 Max.]
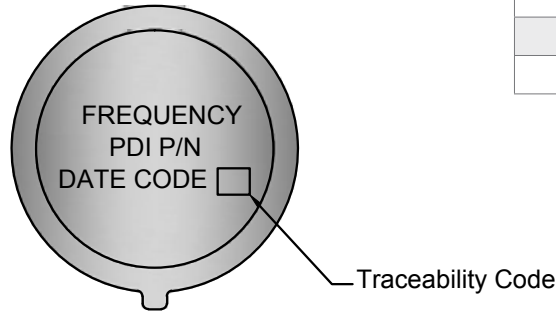
"H" Dimension

A	.155 [3.93]
B	.265 [6.73]

"H"

.500 MIN
[12.70 Min.]

.018 ±.002
[.46 ±.05]

.032
[.81]

.200 ±.008
[5.08 ±.20]

.200 ±.008
[5.08 ±.20]

4 5 1

3 2
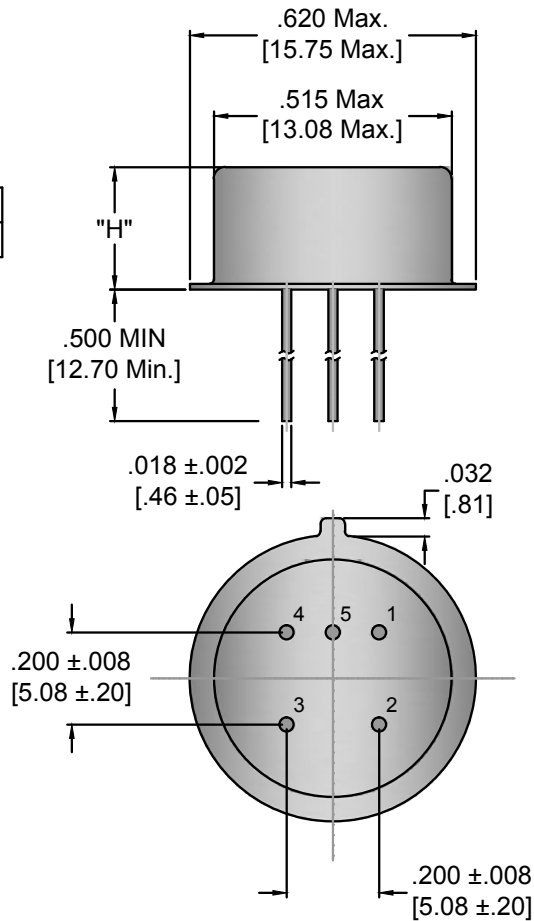
NOTES:
Other options are available, please consult factory.
All product is supplied *RoHS* and *REACH* compliant.
Product can be supplied on Tape and Reel, on reels of 1,000 units.
Specifications subject to change without notice, last updated 4/1/13.

CERTIFIED ISO-14001 COMPANY

REACH COMPLIANCE

RoHS Compliant