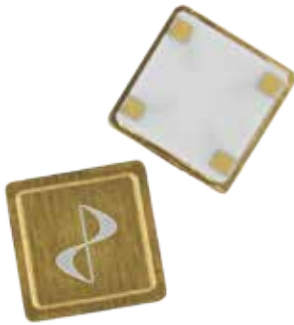


# S8-Series Specifications



**8.00L x 8.00W x 2.45H (mm)**

PDI S8-Series is a hermetically sealed quartz crystal in a surface mount 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) **S8-25000X-F-B-C-B-18-X-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

## PACKAGE

**X** = Surface Mount

\*(X) for standard or assigned for customization.

| Parameter                              |                              | Mode                       |                     |                     | Units |
|----------------------------------------|------------------------------|----------------------------|---------------------|---------------------|-------|
|                                        |                              | Fundamental                | 3rd Overtone        | 5th Overtone        |       |
| Frequency Range <sup>*1</sup>          |                              | 8.0000 to 40.0000          | 40.0000 to 120.0000 | 60.0000 to 200.0000 | MHz   |
| Frequency Tolerance                    | @ +25°C                      | Per Option                 |                     |                     | ppm   |
| Temperature Range <sup>*1</sup>        | Operating                    | Per Option                 |                     |                     | °C    |
|                                        | Storage                      | - 55 to +125               |                     |                     | °C    |
| Frequency Stability <sup>*1</sup>      | Over Operating Temperature   | Per Option                 |                     |                     | ppm   |
| Equivalent Series Resistance (Maximum) | 8.000000 to 10.000000 MHz    | 80                         |                     |                     | Ω     |
|                                        | 10.000000 to 13.000000 MHz   | 60                         |                     |                     |       |
|                                        | 13.000000 to 20.000000 MHz   | 40                         |                     |                     |       |
|                                        | 20.000000 to 30.000000 MHz   | 30                         |                     |                     |       |
|                                        | 25.000000 to 40.000000 MHz   | 60                         |                     |                     |       |
|                                        | 40.000000 to 60.000000 MHz   |                            | 50                  |                     |       |
|                                        | 60.000000 to 80.000000 MHz   |                            | 60                  |                     |       |
|                                        | 80.000000 to 120.000000 MHz  |                            | 70                  |                     |       |
|                                        | 60.000000 to 100.000000 MHz  |                            |                     | 80                  |       |
|                                        | 100.000000 to 150.000000 MHz |                            |                     | 90                  |       |
|                                        | 125.000000 to 200.000000 MHz |                            |                     | 100                 |       |
| Drive Level (Typical)                  |                              | 100                        |                     |                     | uW    |
| Shunt Capacitance (Maximum)            |                              | 7.0                        |                     |                     | pF    |
| Load Capacitance (Typical)             |                              | Per Option                 |                     |                     | pF    |
| Aging (Maximum)                        | Per Year                     | ±3.0                       |                     |                     | ppm   |
| Seal Method                            |                              | Resistance Weld            |                     |                     |       |
| Insulation Resistance                  |                              | 500MΩ Minimum @100Vdc ±15V |                     |                     |       |

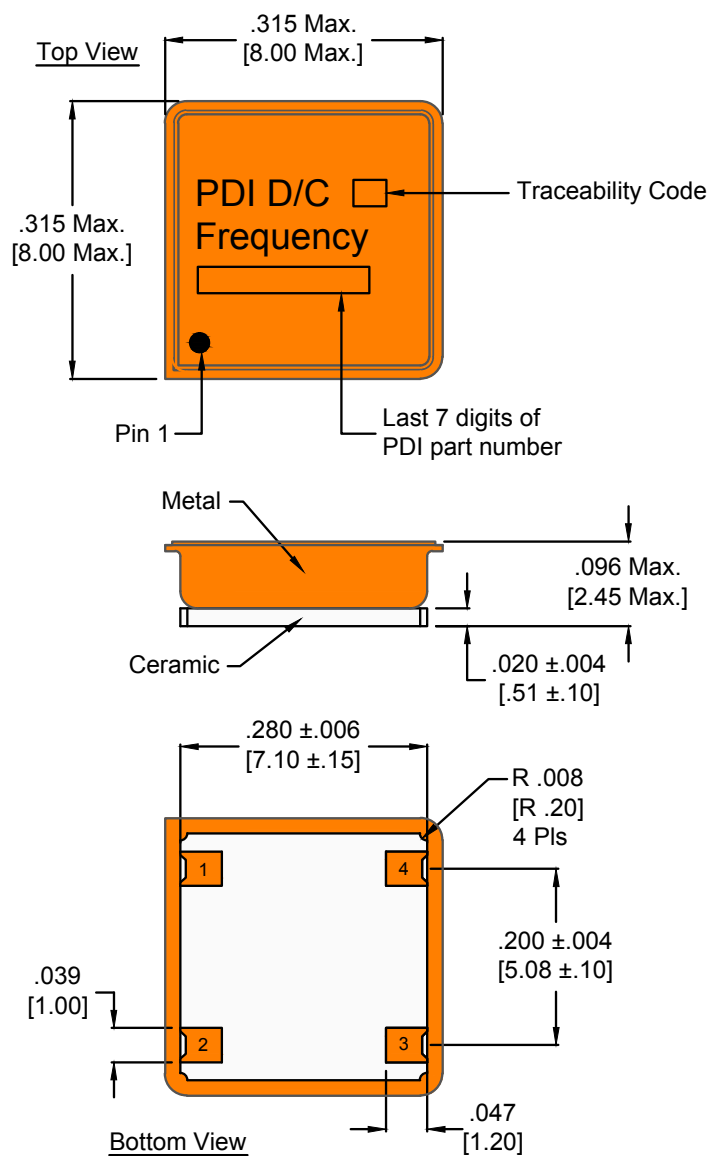
\*1 - Not all Frequency/Stability/Temperature combinations are available.

# S8-Series 8.00 x 8.00 x 2.45 (mm)

## PACKAGE DIMENSIONS

Decimal XXX =  $\pm .008$ , XX =  $\pm .02$  Metric [XXX =  $\pm .20$ ], [XX =  $\pm .50$ ]

| PIN | CONNECTION |
|-----|------------|
| 1   | Crystal    |
| 2   | No Connect |
| 3   | Crystal    |
| 4   | No Connect |



### NOTES:

Terminals are Au.  
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.