

# 1000V CERAMIC DISC

## 90000 SERIES

The 90000 series is a range of insulated disc, monolithic fixed ceramic capacitors. They are most commonly used in consumer electronics and telecommunication equipment.

### RATINGS

**Capacitance Range:** 1.0pf to 0.10 $\mu$ f (100,000pf)

**Voltage:** 1000 Volts DC

**Withstand Voltage:** 2500 Volts DC

### PERFORMANCE SPECIFICATIONS

**Operating Temperature Range:**

-25°C to +85°C (-13°F to +185°F)

**Tolerance Range:**

|               |            |
|---------------|------------|
| 9001D0-9009D0 | ±0.5pf     |
| 90010-90210   | ±10%       |
| 90212-90220   | +80%, -20% |
| 90222         | ±20%       |
| 90227-90410   | +80%, -20% |

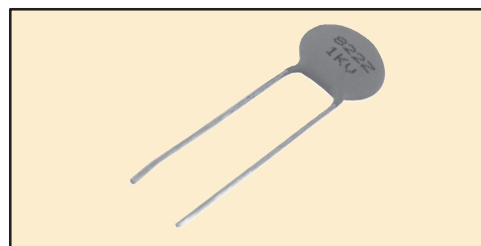
**Temperature Coefficient:**

|              |   |     |
|--------------|---|-----|
| 9001D0-90091 | - | SL  |
| 90110-90118  | - | Y5F |
| 90122-90210  | - | Y5P |
| 90212-90220  | - | Z5V |
| 90222        | - | Z5U |
| 90227-90410  | - | Z5V |

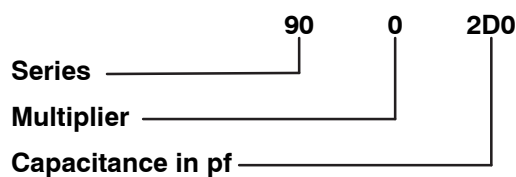
**Insulation Resistance:** 7500M $\Omega$  Min  
measured after 1 Minute at rated voltage

### 90000 Series Dimensions (Figure 2)

| Cap<br>pf | D $\varnothing$<br>mm | S<br>mm | Cap<br>pf | D $\varnothing$<br>mm | S<br>mm | Cap<br>pf     | D $\varnothing$<br>mm | S<br>mm |
|-----------|-----------------------|---------|-----------|-----------------------|---------|---------------|-----------------------|---------|
| 1.0pf     | 5                     | 7.5     | 39pf      | 5                     | 7.5     | 1500pf        | 5                     | 7.5     |
| 2.0pf     | 6                     | 7.5     | 47pf      | 5                     | 7.5     | 1800pf        | 6                     | 7.5     |
| 2.2pf     | 5                     | 7.5     | 56pf      | 5                     | 7.5     | 2000pf        | 6                     | 7.5     |
| 2.7pf     | 5                     | 7.5     | 62pf      | 5                     | 7.5     | 2200pf        | 6                     | 7.5     |
| 3.0pf     | 5                     | 7.5     | 68pf      | 6                     | 7.5     | 2700pf        | 7                     | 7.5     |
| 3.3pf     | 6                     | 7.5     | 75pf      | 6                     | 7.5     | 3000pf        | 7                     | 7.5     |
| 4.0pf     | 5                     | 7.5     | 82pf      | 6                     | 7.5     | 3300pf        | 7                     | 7.5     |
| 4.7pf     | 5                     | 7.5     | 91pf      | 6                     | 7.5     | 3900pf        | 7                     | 7.5     |
| 5.0pf     | 5                     | 7.5     | 100pf     | 5                     | 7.5     | 4300pf        | 7                     | 7.5     |
| 5.6pf     | 5                     | 7.5     | 120pf     | 5                     | 7.5     | 4700pf        | 8                     | 7.5     |
| 6.2pf     | 5                     | 7.5     | 150pf     | 5                     | 7.5     | 5000pf        | 8                     | 7.5     |
| 6.8pf     | 5                     | 7.5     | 180pf     | 5                     | 7.5     | 5600pf        | 8.5                   | 7.5     |
| 7.5pf     | 5                     | 7.5     | 220pf     | 5                     | 7.5     | 6800pf        | 10.5                  | 7.5     |
| 8.0pf     | 6                     | 7.5     | 270pf     | 6                     | 7.5     | 7500pf        | 10.5                  | 7.5     |
| 9.0pf     | 5                     | 7.5     | 330pf     | 6                     | 7.5     | 8200pf        | 10.5                  | 7.5     |
| 10pf      | 5                     | 7.5     | 390pf     | 6                     | 7.5     | 0.01 $\mu$ f  | 10.5                  | 7.5     |
| 12pf      | 5                     | 7.5     | 430pf     | 6                     | 7.5     | 0.015 $\mu$ f | 10.5                  | 7.5     |
| 13pf      | 5                     | 7.5     | 470pf     | 5                     | 7.5     | 0.020 $\mu$ f | 11.0                  | 7.5     |
| 15pf      | 5                     | 7.5     | 500pf     | 6                     | 7.5     | 0.022 $\mu$ f | 13.5                  | 8.5     |
| 18pf      | 5                     | 7.5     | 560pf     | 6                     | 7.5     | 0.030 $\mu$ f | 13.5                  | 8.5     |
| 20pf      | 5                     | 7.5     | 680pf     | 6                     | 7.5     | 0.033 $\mu$ f | 13.5                  | 8.5     |
| 22pf      | 5                     | 7.5     | 750pf     | 6                     | 7.5     | 0.036 $\mu$ f | 13.5                  | 8.5     |
| 24pf      | 6                     | 7.5     | 820pf     | 6                     | 7.5     | 0.047 $\mu$ f | 16.5                  | 10.5    |
| 27pf      | 5                     | 7.5     | 910pf     | 6                     | 7.5     | 0.050 $\mu$ f | 16.5                  | 10.5    |
| 30pf      | 5                     | 7.5     | 1000pf    | 5                     | 7.5     | 0.10 $\mu$ f  | 20.0                  | 10.5    |
| 33pf      | 5                     | 7.5     | 1200pf    | 5                     | 7.5     |               |                       |         |



### ORDERING INFORMATION



Example: 9002D0 = 2.0pf  
90220 = 2000pf  
90347 = 0.047 $\mu$ f

### MARKING EXAMPLE

Example: 2pf = 2  
2000pf = 202  
0.047 $\mu$ f = 473

### Figure 1

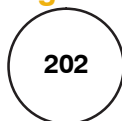
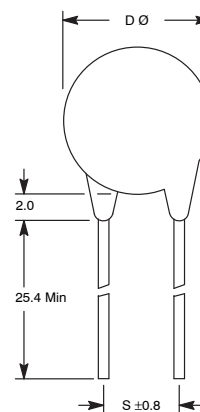


Figure 2.



All dimensions are in mm