

# Ceramic Capacitors

**SS45 TYPE [SEMICONDUCTIVE BOUNDARY LAYER TYPE, 16, 25Vdc]**  
**SC45 TYPE [SEMICONDUCTIVE SURFACE LAYER TYPE, 25, 50Vdc]**  
**CLASS III**

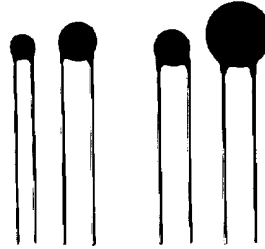
## FEATURES

### SS45 type

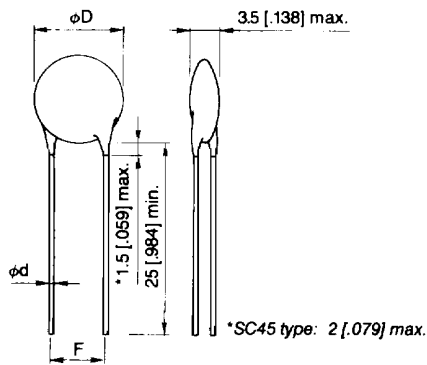
- Semiconductive capacitors which consist of the insulation layer formed in the crystal particle field of the titanate strontium semiconductive ceramic.

### SC45 type

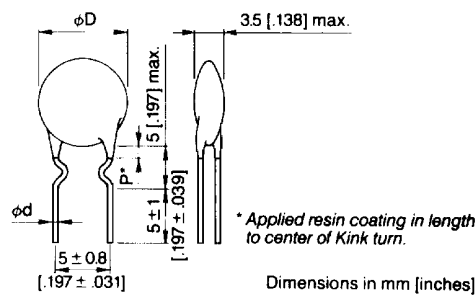
- Semiconductive capacitors which consist of the dielectric by reoxidizing the surface of the barium titanate semiconductive ceramic.



### Lead style A



### Lead style J



## CAPACITANCE AND DIMENSIONS (Operating temperature range: -25 to +85°C [-13 to +185°F])

### SS45 Type 16Vdc

| Part No.        | Capacitance temperature characteristics | Capacitance (pF) | Capacitance tolerance | Dimensions (mm) [Inches] |              |                  |
|-----------------|---|------------------|-----------------------|--------------------------|--------------|------------------|
|                 |   |                  |                       | D max.                   | F ± 1 [.039] | φd ± 0.05 [.002] |
| SS45X1C223MY□ * | X (± 15%)                               | 22000            | M (± 20%)             | 4.5 [.177]               | 2.5 [.098]   | 0.5 [.020]       |
| SS45X1C333MY□   | X (± 15%)                               | 33000            | M (± 20%)             | 5 [.197]                 | 2.5 [.098]   | 0.5 [.020]       |
| SS45X1C473MY□   | X (± 15%)                               | 47000            | M (± 20%)             | 6 [.236]                 | 5 [.197]     | 0.6 [.024]       |
| SS45X1C683MY□   | X (± 15%)                               | 68000            | M (± 20%)             | 6.5 [.256]               | 5 [.197]     | 0.6 [.024]       |
| SS45X1C104MY□   | X (± 15%)                               | 100000           | M (± 20%)             | 7.5 [.295]               | 5 [.197]     | 0.6 [.024]       |
| SS45X1C154MY□   | X (± 15%)                               | 150000           | M (± 20%)             | 9.5 [.374]               | 5 [.197]     | 0.6 [.024]       |
| SS45X1C224MY□   | X (± 15%)                               | 220000           | M (± 20%)             | 11 [.433]                | 5 [.197]     | 0.6 [.024]       |

\* Lead style code

### 25Vdc

| Part No.           | Capacitance temperature characteristics | Capacitance (pF)                          | Capacitance tolerance | Dimensions (mm) [Inches] |              |                  |
|--------------------|---|---|-----------------------|--------------------------|--------------|------------------|
|                    |   |   |                       | D max.                   | F ± 1 [.039] | φd ± 0.05 [.002] |
| SS45X1E○○○*1MY□ *2 | X (± 15%)                               | 1000, 1500, 2200, 3300, 4700, 6800, 10000 | M (± 20%)             | 4.5 [.177]               | 2.5 [.098]   | 0.5 [.020]       |
| SS45X1E153MY□      | X (± 15%)                               | 15000                                     | M (± 20%)             | 5 [.197]                 | 2.5 [.098]   | 0.5 [.020]       |
| SS45X1E223MY□      | X (± 15%)                               | 22000                                     | M (± 20%)             | 6 [.236]                 | 5 [.197]     | 0.6 [.024]       |
| SS45X1E333MY□      | X (± 15%)                               | 33000                                     | M (± 20%)             | 6.5 [.256]               | 5 [.197]     | 0.6 [.024]       |
| SS45X1E473MY□      | X (± 15%)                               | 47000                                     | M (± 20%)             | 7.5 [.295]               | 5 [.197]     | 0.6 [.024]       |
| SS45X1E683MY□      | X (± 15%)                               | 68000                                     | M (± 20%)             | 9.5 [.374]               | 5 [.197]     | 0.6 [.024]       |
| SS45X1E104MY□      | X (± 15%)                               | 100000                                    | M (± 20%)             | 11 [.433]                | 5 [.197]     | 0.6 [.024]       |

\*1. Capacitance code \*2. Lead style code

# Ceramic Capacitors

## SC45 Type 25Vdc

| Part No.          | Capacitance temperature characteristics | Capacitance (pF) | Capacitance tolerance | Dimensions (mm) [Inches] |              |                  |
|-------------------|---|------------------|-----------------------|--------------------------|--------------|------------------|
|                   |   |                  |                       | D max.                   | F ± 1 [.039] | φd ± 0.05 [.002] |
| SC45F1E○○○*1ZY□*2 | F (+30, -80%)                           | 22000            | Z (+80, -20%)         | 4 [.157]                 | 2.5 [.098]   | 0.5 [.020]       |
| SC45F1E473ZY□     | F (+30, -80%)                           | 47000            | Z (+80, -20%)         | 6 [.236]                 | 5 [.197]     | 0.6 [.024]       |
| SC45F1E104ZY□     | F (+30, -80%)                           | 100000           | Z (+80, -20%)         | 8 [.315]                 | 5 [.197]     | 0.6 [.024]       |

\*1. Capacitance code \*2. Lead style code

## 50Vdc

| Part No.       | Capacitance temperature characteristics | Capacitance (pF) | Capacitance tolerance | Dimensions (mm) [Inches] |              |                  |
|----------------|---|------------------|-----------------------|--------------------------|--------------|------------------|
|                |   |                  |                       | D max.                   | F ± 1 [.039] | φd ± 0.05 [.002] |
| SC45F1H103ZY□* | F (+30, -80%)                           | 10000            | Z (+80, -20%)         | 4.5 [.177]               | 2.5 [.098]   | 0.5 [.020]       |
| SC45F1H223ZY□  | F (+30, -80%)                           | 22000            | Z (+80, -20%)         | 5 [.197]                 | 2.5 [.098]   | 0.5 [.020]       |
| SC45F1H473ZY□  | F (+30, -80%)                           | 47000            | Z (+80, -20%)         | 7 [.276]                 | 5 [.197]     | 0.6 [.024]       |
| SC45F1H104ZY□  | F (+30, -80%)                           | 100000           | Z (+80, -20%)         | 10 [.394]                | 5 [.197]     | 0.6 [.024]       |

\* Lead style code