



## Highlights

- Provides exceptional stability where minimum variation in capacitance is required
- Conformally Coated
- Radial Leads

## Specifications

|                                     |                            |
|-------------------------------------|----------------------------|
| <b>Capacitance Range:</b>           | 100 pF to 10,000 pF        |
| <b>Voltage Range:</b>               | 500 and 1,000 VDC          |
| <b>Tolerance:</b>                   | 10%                        |
| <b>Operating Temperature Range:</b> | -30 °C to +85 °C           |
| <b>Lead Length:</b>                 | 1 inch minimum             |
| <b>Insulation Resistance:</b>       | 10,000 megohms (min)       |
| <b>Power Factor @ 1000 Hz:</b>      | 1.5% Max                   |
| <b>Breakdown Voltage:</b>           | 2.5 x rated(5 seconds Max) |

## Ratings

| Part Number | Capacity pF | Tol | Temp Coef | Size (inches) |      |      |      | Size (Millimeters) |     |     |      |
|-------------|-------------|-----|-----------|---------------|------|------|------|--------------------|-----|-----|------|
|             |             |     |           | D             | T    | S    | d    | D                  | T   | S   | d    |
| 500 WVDC    |             |     |           |               |      |      |      |                    |     |     |      |
| SM151K      | 150         | 10% | Y5E       | .236          | .157 | .252 | .025 | 6.0                | 4.0 | 6.4 | 0.65 |
| SM221K      | 220         | 10% | Y5E       | .236          | .157 | .252 | .025 | 6.0                | 4.0 | 6.4 | 0.65 |
| SM391K      | 390         | 10% | Y5E       | .236          | .157 | .252 | .025 | 6.0                | 4.0 | 6.4 | 0.65 |
| SM471K      | 470         | 10% | Y5E       | .236          | .157 | .252 | .025 | 6.0                | 4.0 | 6.4 | 0.65 |
| SM561K      | 560         | 10% | Y5E       | .236          | .157 | .252 | .025 | 6.0                | 4.0 | 6.4 | 0.65 |
| SM681K      | 680         | 10% | Y5E       | .236          | .157 | .252 | .025 | 6.0                | 4.0 | 6.4 | 0.65 |
| SM102K      | 1,000       | 10% | Y5E       | .339          | .157 | .252 | .025 | 8.6                | 4.0 | 6.4 | 0.65 |
| SM222K      | 2,200       | 10% | Y5E       | .433          | .157 | .252 | .025 | 11.0               | 4.0 | 6.4 | 0.65 |
| SM472K      | 4,700       | 10% | Y5E       | .571          | .157 | .374 | .025 | 14.5               | 4.0 | 9.5 | 0.65 |
| SM682K      | 6,800       | 10% | Y5E       | .748          | .157 | .374 | .025 | 19.0               | 4.0 | 9.5 | 0.65 |
| SM103K      | 10,000      | 10% | Y5E       | .748          | .157 | .374 | .025 | 19.0               | 4.0 | 9.5 | 0.65 |

| Part Number | Capacity pF | Tol | Temp Coef | Size (inches) |      |      |      | Size (Millimeters) |     |     |      |
|-------------|-------------|-----|-----------|---------------|------|------|------|--------------------|-----|-----|------|
|             |             |     |           | D             | T    | S    | d    | D                  | T   | S   | d    |
| 1000 WVDC   |             |     |           |               |      |      |      |                    |     |     |      |
| SP101K      | 100         | 10% | Y5E       | .238          | .236 | .252 | .025 | 6.0                | 6.0 | 6.4 | 0.65 |
| SP151K      | 150         | 10% | Y5E       | .238          | .236 | .252 | .025 | 6.0                | 6.0 | 6.4 | 0.65 |
| SP181K      | 180         | 10% | Y5E       | .238          | .236 | .252 | .025 | 6.0                | 6.0 | 6.4 | 0.65 |
| SP221K      | 220         | 10% | Y5E       | .238          | .236 | .252 | .025 | 6.0                | 6.0 | 6.4 | 0.65 |
| SP271K      | 270         | 10% | Y5E       | .238          | .236 | .252 | .025 | 6.0                | 6.0 | 6.4 | 0.65 |
| SP331K      | 330         | 10% | Y5E       | .238          | .236 | .252 | .025 | 6.0                | 6.0 | 6.4 | 0.65 |
| SP391K      | 390         | 10% | Y5E       | .238          | .236 | .252 | .025 | 6.0                | 6.0 | 6.4 | 0.65 |
| SP471K      | 470         | 10% | Y5E       | .238          | .236 | .252 | .025 | 6.0                | 6.0 | 6.4 | 0.65 |
| SP561K      | 560         | 10% | Y5E       | .291          | .236 | .252 | .025 | 7.4                | 6.0 | 6.4 | 0.65 |
| SP681K      | 680         | 10% | Y5E       | .291          | .236 | .252 | .025 | 7.4                | 6.0 | 6.4 | 0.65 |
| SP102K      | 1,000       | 10% | Y5E       | .374          | .236 | .252 | .025 | 9.5                | 6.0 | 6.4 | 0.65 |
| SP152K      | 1,500       | 10% | Y5E       | .433          | .236 | .252 | .025 | 11.0               | 6.0 | 6.4 | 0.65 |
| SP182K      | 1,800       | 10% | Y5E       | .433          | .236 | .252 | .025 | 11.0               | 6.0 | 6.4 | 0.65 |
| SP222K      | 2,200       | 10% | Y5E       | .492          | .236 | .252 | .025 | 12.5               | 6.0 | 6.4 | 0.65 |
| SP272K      | 2,700       | 10% | Y5E       | .590          | .236 | .374 | .025 | 15.0               | 6.0 | 9.5 | 0.65 |
| SP392K      | 3,900       | 10% | Y5E       | .641          | .236 | .374 | .025 | 16.3               | 6.0 | 9.5 | 0.65 |
| SP472K      | 4,700       | 10% | Y5E       | .641          | .236 | .374 | .025 | 16.3               | 6.0 | 9.5 | 0.65 |

# EIA Class 2 Temperature/ Frequency Stable Ceramic Capacitors

## High Voltage Highlights and Specifications

- Highly Efficient for Bypass and Coupling Applications
- Designed Around EIA Test
- Spec. RS-165ARadial Leads

**Capacitance Range:** 100 pF to 10,000 pF  
**Voltage Range:** 2,000 and 3,000 WVDC  
**Tolerance:** 10%. 20%  
**Operating Temperature Range:** -30 °C to +85 °C  
**Lead Length:** 1 inch minimum  
**Insulation Resistance:** 10,000 megohms (min)  
**Power Factor @ 1000 Hz:** 2.5% Max  
**Breakdown Voltage:** 2.5 x rated(5 seconds Max)

## Ratings

| Part Number | Capacity pF | Tol | Temp Coef | Size (inches) |      |      |      | Size (Millimeters) |     |     |     |
|-------------|-------------|-----|-----------|---------------|------|------|------|--------------------|-----|-----|-----|
|             |             |     |           | D             | T    | S    | d    | D                  | T   | S   | d   |
| 2000 WVDC   |             |     |           |               |      |      |      |                    |     |     |     |
| HS102M      | 1,000       | 20% | Y5U**     | .394          | .236 | .252 | .032 | 10.0               | 6.0 | 6.4 | 0.8 |
| HS152M      | 1,500       | 20% | Y5U**     | .394          | .236 | .252 | .032 | 10.0               | 6.0 | 6.4 | 0.8 |
| HS222M      | 2,200       | 20% | Y5U**     | .433          | .236 | .252 | .032 | 11.0               | 6.0 | 6.4 | 0.8 |
| HS332M      | 3,300       | 20% | Y5U**     | .590          | .236 | .374 | .032 | 15.0               | 6.0 | 9.5 | 0.8 |
| HS472M      | 4,700       | 20% | Y5U**     | .590          | .236 | .374 | .032 | 15.0               | 6.0 | 9.5 | 0.8 |
| HS682M      | 6,800       | 20% | Y5U**     | .787          | .236 | .374 | .032 | 20.0               | 6.0 | 9.5 | 0.8 |
| HS103M      | 10,000      | 20% | Y5U**     | .787          | .236 | .374 | .032 | 20.0               | 6.0 | 9.5 | 0.8 |
| 3000 WVDC   |             |     |           |               |      |      |      |                    |     |     |     |
| HT101K      | 100         | 10% | Y5P       | .394          | .236 | .374 | .032 | 10.0               | 6.0 | 9.5 | 0.8 |
| HT121K      | 120         | 10% | Y5P       | .394          | .236 | .374 | .032 | 10.0               | 6.0 | 9.5 | 0.8 |
| HT151K      | 150         | 10% | Y5P       | .394          | .236 | .374 | .032 | 10.0               | 6.0 | 9.5 | 0.8 |
| HT181K      | 180         | 10% | Y5P       | .394          | .236 | .374 | .032 | 10.0               | 6.0 | 9.5 | 0.8 |
| HT221K      | 220         | 10% | Y5P       | .394          | .236 | .374 | .032 | 10.0               | 6.0 | 9.5 | 0.8 |
| HT271K      | 270         | 10% | Y5P       | .394          | .236 | .374 | .032 | 10.0               | 6.0 | 9.5 | 0.8 |
| HT331K      | 330         | 10% | Y5P       | .394          | .236 | .374 | .032 | 10.0               | 6.0 | 9.5 | 0.8 |

| Part Number | Capacity pF | Tol | Temp Coef | Size (inches) |      |      |      | Size (Millimeters) |     |     |     |
|-------------|-------------|-----|-----------|---------------|------|------|------|--------------------|-----|-----|-----|
|             |             |     |           | D             | T    | S    | d    | D                  | T   | S   | d   |
| 3000 WVDC   |             |     |           |               |      |      |      |                    |     |     |     |
| HT391K      | 390         | 10% | Y5P       | .394          | .236 | .374 | .032 | 10.0               | 6.0 | 9.5 | 0.8 |
| HT471K      | 470         | 10% | Y5P       | .394          | .236 | .374 | .032 | 10.0               | 6.0 | 9.5 | 0.8 |
| HT561K      | 560         | 10% | Y5P       | .394          | .236 | .374 | .032 | 10.0               | 6.0 | 9.5 | 0.8 |
| HT681K      | 680         | 10% | Y5P       | .433          | .236 | .374 | .032 | 11.0               | 6.0 | 9.5 | 0.8 |
| HT821K      | 820         | 10% | Y5P       | .433          | .236 | .374 | .032 | 11.0               | 6.0 | 9.5 | 0.8 |
| HT102K      | 1,000       | 10% | Y5P       | .590          | .236 | .374 | .032 | 15.0               | 6.0 | 9.5 | 0.8 |
| HT102M      | 1,000       | 20% | Y5U**     | .394          | .236 | .374 | .032 | 10.0               | 6.0 | 9.5 | 0.8 |
| HT122K      | 1,200       | 10% | Y5P       | .590          | .236 | .374 | .032 | 15.0               | 6.0 | 9.5 | 0.8 |
| HT152K      | 1,500       | 10% | Y5P       | .590          | .236 | .374 | .032 | 11.0               | 6.0 | 9.5 | 0.8 |
| HT152M      | 1,500       | 20% | Y5U**     | .433          | .236 | .374 | .032 | 11.0               | 6.0 | 9.5 | 0.8 |
| HT182K      | 1,800       | 10% | Y5P       | .590          | .236 | .374 | .032 | 15.0               | 6.0 | 9.5 | 0.8 |
| HT182M      | 1,800       | 20% | Y5U**     | .433          | .236 | .374 | .032 | 11.0               | 6.0 | 9.5 | 0.8 |
| HT222K      | 2,200       | 10% | Y5P       | .787          | .236 | .374 | .032 | 20.0               | 6.0 | 9.5 | 0.8 |
| HT222M      | 2,200       | 20% | Y5U**     | .590          | .236 | .374 | .032 | 15.0               | 6.0 | 9.5 | 0.8 |
| HT272K      | 2,700       | 10% | Y5P       | .787          | .236 | .374 | .032 | 20.0               | 6.0 | 9.5 | 0.8 |
| HT332K      | 3,300       | 10% | Y5P       | .787          | .236 | .374 | .032 | 20.0               | 6.0 | 9.5 | 0.8 |
| HT472M      | 4,700       | 20% | Y5U**     | .787          | .236 | .374 | .032 | 20.0               | 6.0 | 9.5 | 0.8 |
| HT682M      | 6,800       | 20% | Y5U**     | 0.787         | .236 | .374 | .032 | 20.0               | 6.0 | 9.5 | 0.8 |

**\*\*Please note: Y5U Will no longer be available once stock is depleted. (2/23/05)**