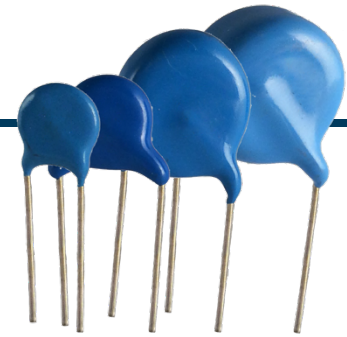




TY4 SERIES (Y5U)

3 to 20kV
High Voltage Ceramic Capacitors



Features

- Radial Leaded Package
- Y5U Temperature Characteristics

Specifications

| Part Number | C pF | Tolerance ±% | V _{RATE} kV DC | V _{WITHSTAND} kV | D ¹ mm | H ¹ mm | T ¹ mm | L ² mm | Ls ³ mm | d ⁴ mm |
|---------------|-------|--------------|-------------------------|---------------------------|-------------------|-------------------|-------------------|-------------------|--------------------|-------------------|
| TY4Y5U331M3KV | 330 | 20 | 3 | 6.0 | 8.0 | 11.0 | 5.0 | 25.0 | 7.5 | 0.6 |
| TY4Y5U471M3KV | 470 | 20 | 3 | 6.0 | 8.0 | 11.0 | 5.0 | 25.0 | 7.5 | 0.6 |
| TY4Y5U561M3KV | 560 | 20 | 3 | 6.0 | 8.0 | 11.0 | 5.0 | 25.0 | 7.5 | 0.6 |
| TY4Y5U681M3KV | 680 | 20 | 3 | 6.0 | 8.0 | 11.0 | 5.0 | 25.0 | 7.5 | 0.6 |
| TY4Y5U821M3KV | 820 | 20 | 3 | 6.0 | 8.0 | 11.0 | 5.0 | 25.0 | 7.5 | 0.6 |
| TY4Y5U102M3KV | 1000 | 20 | 3 | 6.0 | 8.0 | 11.0 | 5.0 | 25.0 | 7.5 | 0.6 |
| TY4Y5U152M3KV | 1500 | 20 | 3 | 6.0 | 9.0 | 12.0 | 5.0 | 25.0 | 7.5 | 0.6 |
| TY4Y5U222M3KV | 2200 | 20 | 3 | 6.0 | 11.0 | 14.0 | 5.0 | 25.0 | 7.5 | 0.6 |
| TY4Y5U272M3KV | 2700 | 20 | 3 | 6.0 | 12.0 | 15.0 | 5.0 | 25.0 | 7.5 | 0.6 |
| TY4Y5U332M3KV | 3300 | 20 | 3 | 6.0 | 13.0 | 16.0 | 5.0 | 25.0 | 7.5 | 0.6 |
| TY4Y5U472M3KV | 4700 | 20 | 3 | 6.0 | 15.0 | 18.0 | 5.0 | 25.0 | 7.5 | 0.6 |
| TY4Y5U682M3KV | 6800 | 20 | 3 | 6.0 | 16.0 | 19.0 | 5.0 | 25.0 | 7.5 | 0.6 |
| TY4Y5U822M3KV | 8200 | 20 | 3 | 6.0 | 18.0 | 21.0 | 5.0 | 25.0 | 7.5 | 0.6 |
| TY4Y5U103M3KV | 10000 | 20 | 3 | 6.0 | 19.0 | 22.0 | 5.0 | 25.0 | 7.5 | 0.6 |
| TY4Y5U331M4KV | 330 | 20 | 4 | 8.0 | 8.0 | 11.0 | 6.0 | 25.0 | 10.0 | 0.6 |
| TY4Y5U471M4KV | 470 | 20 | 4 | 8.0 | 8.0 | 11.0 | 6.0 | 25.0 | 10.0 | 0.6 |
| TY4Y5U561M4KV | 560 | 20 | 4 | 8.0 | 8.0 | 11.0 | 6.0 | 25.0 | 10.0 | 0.6 |
| TY4Y5U681M4KV | 680 | 20 | 4 | 8.0 | 8.0 | 11.0 | 6.0 | 25.0 | 10.0 | 0.6 |
| TY4Y5U821M4KV | 820 | 20 | 4 | 8.0 | 9.0 | 12.0 | 6.0 | 25.0 | 10.0 | 0.6 |
| TY4Y5U102M4KV | 1000 | 20 | 4 | 8.0 | 9.0 | 12.0 | 6.0 | 25.0 | 10.0 | 0.6 |
| TY4Y5U152M4KV | 1500 | 20 | 4 | 8.0 | 10.0 | 13.0 | 6.0 | 25.0 | 10.0 | 0.6 |
| TY4Y5U222M4KV | 2200 | 20 | 4 | 8.0 | 12.0 | 15.0 | 6.0 | 25.0 | 10.0 | 0.6 |
| TY4Y5U272M4KV | 2700 | 20 | 4 | 8.0 | 13.0 | 16.0 | 6.0 | 25.0 | 10.0 | 0.6 |
| TY4Y5U332M4KV | 3300 | 20 | 4 | 8.0 | 14.0 | 17.0 | 6.0 | 25.0 | 10.0 | 0.6 |
| TY4Y5U472M4KV | 4700 | 20 | 4 | 8.0 | 15.0 | 18.0 | 6.0 | 25.0 | 10.0 | 0.6 |
| TY4Y5U682M4KV | 6800 | 20 | 4 | 8.0 | 18.0 | 21.0 | 6.0 | 25.0 | 10.0 | 0.6 |
| TY4Y5U822M4KV | 8200 | 20 | 4 | 8.0 | 19.0 | 22.0 | 6.0 | 25.0 | 10.0 | 0.6 |
| TY4Y5U103M4KV | 10000 | 20 | 4 | 8.0 | 20.0 | 23.0 | 6.5 | 25.0 | 10.0 | 0.7 |
| TY4Y5U331M5KV | 330 | 20 | 5 | 10.0 | 8.0 | 11.0 | 7.0 | 25.0 | 10.0 | 0.6 |
| TY4Y5U471M5KV | 470 | 20 | 5 | 10.0 | 8.0 | 11.0 | 7.0 | 25.0 | 10.0 | 0.6 |
| TY4Y5U561M5KV | 560 | 20 | 5 | 10.0 | 8.0 | 11.0 | 7.0 | 25.0 | 10.0 | 0.6 |
| TY4Y5U681M5KV | 680 | 20 | 5 | 10.0 | 9.0 | 12.0 | 7.0 | 25.0 | 10.0 | 0.6 |
| TY4Y5U821M5KV | 820 | 20 | 5 | 10.0 | 10.0 | 13.0 | 7.0 | 25.0 | 10.0 | 0.6 |
| TY4Y5U102M5KV | 1000 | 20 | 5 | 10.0 | 10.0 | 13.0 | 7.0 | 25.0 | 10.0 | 0.6 |
| TY4Y5U152M5KV | 1500 | 20 | 5 | 10.0 | 11.0 | 14.0 | 7.0 | 25.0 | 10.0 | 0.6 |
| TY4Y5U222M5KV | 2200 | 20 | 5 | 10.0 | 12.0 | 15.0 | 7.0 | 25.0 | 10.0 | 0.6 |
| TY4Y5U272M5KV | 2700 | 20 | 5 | 10.0 | 13.0 | 16.0 | 7.0 | 25.0 | 10.0 | 0.6 |
| TY4Y5U332M5KV | 3300 | 20 | 5 | 10.0 | 15.0 | 18.0 | 7.0 | 25.0 | 10.0 | 0.6 |
| TY4Y5U472M5KV | 4700 | 20 | 5 | 10.0 | 17.0 | 20.0 | 7.0 | 25.0 | 10.0 | 0.6 |
| TY4Y5U682M5KV | 6800 | 20 | 5 | 10.0 | 20.0 | 23.0 | 7.5 | 25.0 | 10.0 | 0.7 |



TY4 SERIES (Y5U)

| Part Number | C pF | Tolerance ±% | V _{RATE} kV DC | V _{WITHSTAND} kV | D ¹ mm | H ¹ mm | T ¹ mm | L ² mm | Ls ³ mm | d ⁴ mm |
|----------------|-------|--------------|-------------------------|---------------------------|-------------------|-------------------|-------------------|-------------------|--------------------|-------------------|
| TY4Y5U822M5KV | 8200 | 20 | 5 | 10.0 | 21.0 | 25.0 | 7.5 | 25.0 | 10.0 | 0.7 |
| TY4Y5U103M5KV | 10000 | 20 | 5 | 10.0 | 23.0 | 26.0 | 7.5 | 25.0 | 10.0 | 0.7 |
| TY4Y5U331M6KV | 330 | 20 | 6 | 12.0 | 9.0 | 12.0 | 7.5 | 25.0 | 10.0 | 0.6 |
| TY4Y5U471M6KV | 470 | 20 | 6 | 12.0 | 9.0 | 12.0 | 7.5 | 25.0 | 10.0 | 0.6 |
| TY4Y5U561M6KV | 560 | 20 | 6 | 12.0 | 9.0 | 12.0 | 7.5 | 25.0 | 10.0 | 0.6 |
| TY4Y5U681M6KV | 680 | 20 | 6 | 12.0 | 10.0 | 13.0 | 7.5 | 25.0 | 10.0 | 0.6 |
| TY4Y5U821M6KV | 820 | 20 | 6 | 12.0 | 10.0 | 13.0 | 7.5 | 25.0 | 10.0 | 0.6 |
| TY4Y5U102M6KV | 1000 | 20 | 6 | 12.0 | 10.0 | 13.0 | 7.5 | 25.0 | 10.0 | 0.6 |
| TY4Y5U152M6KV | 1500 | 20 | 6 | 12.0 | 11.0 | 14.0 | 7.5 | 25.0 | 10.0 | 0.6 |
| TY4Y5U222M6KV | 2200 | 20 | 6 | 12.0 | 12.0 | 15.0 | 7.5 | 25.0 | 10.0 | 0.6 |
| TY4Y5U272M6KV | 2700 | 20 | 6 | 12.0 | 14.0 | 17.0 | 7.5 | 25.0 | 10.0 | 0.6 |
| TY4Y5U332M6KV | 3300 | 20 | 6 | 12.0 | 16.0 | 19.0 | 7.5 | 25.0 | 10.0 | 0.6 |
| TY4Y5U472M6KV | 4700 | 20 | 6 | 12.0 | 17.0 | 20.0 | 7.5 | 25.0 | 10.0 | 0.6 |
| TY4Y5U682M6KV | 6800 | 20 | 6 | 12.0 | 19.0 | 22.0 | 8.0 | 25.0 | 10.0 | 0.7 |
| TY4Y5U822M6KV | 8200 | 20 | 6 | 12.0 | 22.0 | 25.0 | 8.0 | 25.0 | 10.0 | 0.7 |
| TY4Y5U103M6KV | 10000 | 20 | 6 | 12.0 | 25.0 | 29.0 | 8.0 | 25.0 | 10.0 | 0.7 |
| TY4Y5U331M8KV | 330 | 20 | 8 | 16.0 | 9.0 | 12.0 | 8.0 | 25.0 | 10.0 | 0.6 |
| TY4Y5U471M8KV | 470 | 20 | 8 | 16.0 | 9.0 | 12.0 | 8.0 | 25.0 | 10.0 | 0.6 |
| TY4Y5U561M8KV | 560 | 20 | 8 | 16.0 | 10.0 | 13.0 | 8.0 | 25.0 | 10.0 | 0.6 |
| TY4Y5U681M8KV | 680 | 20 | 8 | 16.0 | 10.0 | 13.0 | 8.0 | 25.0 | 10.0 | 0.6 |
| TY4Y5U821M8KV | 820 | 20 | 8 | 16.0 | 11.0 | 14.0 | 8.0 | 25.0 | 10.0 | 0.6 |
| TY4Y5U102M8KV | 1000 | 20 | 8 | 16.0 | 12.0 | 15.0 | 8.0 | 25.0 | 10.0 | 0.6 |
| TY4Y5U152M8KV | 1500 | 20 | 8 | 16.0 | 14.0 | 17.0 | 8.0 | 25.0 | 10.0 | 0.6 |
| TY4Y5U222M8KV | 2200 | 20 | 8 | 16.0 | 17.0 | 20.0 | 8.0 | 25.0 | 10.0 | 0.6 |
| TY4Y5U272M8KV | 2700 | 20 | 8 | 16.0 | 18.0 | 21.0 | 8.0 | 25.0 | 10.0 | 0.6 |
| TY4Y5U332M8KV | 3300 | 20 | 8 | 16.0 | 19.0 | 22.0 | 8.0 | 25.0 | 10.0 | 0.6 |
| TY4Y5U472M8KV | 4700 | 20 | 8 | 16.0 | 22.0 | 25.0 | 8.5 | 25.0 | 10.0 | 0.7 |
| TY4Y5U682M8KV | 6800 | 20 | 8 | 16.0 | 26.0 | 30.0 | 8.5 | 25.0 | 10.0 | 0.7 |
| TY4Y5U822M8KV | 8200 | 20 | 8 | 16.0 | 28.0 | 32.0 | 8.5 | 25.0 | 10.0 | 0.7 |
| TY4Y5U331M10KV | 330 | 20 | 10 | 20.0 | 9.0 | 12.0 | 9.0 | 25.0 | 10.0 | 0.7 |
| TY4Y5U471M10KV | 470 | 20 | 10 | 20.0 | 10.0 | 13.0 | 9.0 | 25.0 | 10.0 | 0.7 |
| TY4Y5U561M10KV | 560 | 20 | 10 | 20.0 | 10.0 | 13.0 | 9.0 | 25.0 | 10.0 | 0.7 |
| TY4Y5U681M10KV | 680 | 20 | 10 | 20.0 | 11.0 | 14.0 | 9.0 | 25.0 | 10.0 | 0.7 |
| TY4Y5U821M10KV | 820 | 20 | 10 | 20.0 | 12.0 | 15.0 | 9.0 | 25.0 | 10.0 | 0.7 |
| TY4Y5U102M10KV | 1000 | 20 | 10 | 20.0 | 13.0 | 16.0 | 9.0 | 25.0 | 10.0 | 0.7 |
| TY4Y5U152M10KV | 1500 | 20 | 10 | 20.0 | 15.0 | 18.0 | 9.0 | 25.0 | 10.0 | 0.7 |
| TY4Y5U222M10KV | 2200 | 20 | 10 | 20.0 | 17.0 | 20.0 | 9.0 | 25.0 | 10.0 | 0.7 |
| TY4Y5U272M10KV | 2700 | 20 | 10 | 20.0 | 18.0 | 21.0 | 9.0 | 25.0 | 10.0 | 0.7 |
| TY4Y5U332M10KV | 3300 | 20 | 10 | 20.0 | 20.0 | 23.0 | 9.0 | 25.0 | 10.0 | 0.7 |
| TY4Y5U472M10KV | 4700 | 20 | 10 | 20.0 | 23.0 | 27.0 | 9.0 | 25.0 | 10.0 | 0.7 |
| TY4Y5U682M10KV | 6800 | 20 | 10 | 20.0 | 27.0 | 31.0 | 9.0 | 25.0 | 10.0 | 0.7 |
| TY4Y5U331M12KV | 330 | 20 | 12 | 24.0 | 10.0 | 13.0 | 10.0 | 25.0 | 12.5 | 0.7 |
| TY4Y5U471M12KV | 470 | 20 | 12 | 24.0 | 11.0 | 14.0 | 10.0 | 25.0 | 12.5 | 0.7 |



TY4 SERIES (Y5U)

| Part Number | C pF | Tolerance ±% | V _{RATE} kV DC | V _{WITHSTAND} kV | D ¹ mm | H ¹ mm | T ¹ mm | L ² mm | LS ³ mm | d ⁴ mm |
|----------------|------|--------------|-------------------------|---------------------------|-------------------|-------------------|-------------------|-------------------|--------------------|-------------------|
| TY4Y5U561M12KV | 560 | 20 | 12 | 24.0 | 12.0 | 15.0 | 10.0 | 25.0 | 12.5 | 0.7 |
| TY4Y5U681M12KV | 680 | 20 | 12 | 24.0 | 13.0 | 16.0 | 10.0 | 25.0 | 12.5 | 0.7 |
| TY4Y5U821M12KV | 820 | 20 | 12 | 24.0 | 14.0 | 17.0 | 10.0 | 25.0 | 12.5 | 0.7 |
| TY4Y5U102M12KV | 1000 | 20 | 12 | 24.0 | 15.0 | 18.0 | 10.0 | 25.0 | 12.5 | 0.7 |
| TY4Y5U152M12KV | 1500 | 20 | 12 | 24.0 | 17.0 | 20.0 | 10.0 | 25.0 | 12.5 | 0.7 |
| TY4Y5U222M12KV | 2200 | 20 | 12 | 24.0 | 19.0 | 23.0 | 10.0 | 25.0 | 12.5 | 0.7 |
| TY4Y5U272M12KV | 2700 | 20 | 12 | 24.0 | 22.0 | 25.0 | 10.0 | 25.0 | 12.5 | 0.7 |
| TY4Y5U332M12KV | 3300 | 20 | 12 | 24.0 | 23.0 | 27.0 | 10.0 | 25.0 | 12.5 | 0.7 |
| TY4Y5U472M12KV | 4700 | 20 | 12 | 24.0 | 26.0 | 30.0 | 10.0 | 25.0 | 12.5 | 0.7 |
| TY4Y5U331M15KV | 330 | 20 | 15 | 30.0 | 11.0 | 14.0 | 11.0 | 25.0 | 12.5 | 0.7 |
| TY4Y5U471M15KV | 470 | 20 | 15 | 30.0 | 12.0 | 15.0 | 11.0 | 25.0 | 12.5 | 0.7 |
| TY4Y5U561M15KV | 560 | 20 | 15 | 30.0 | 13.0 | 16.0 | 11.0 | 25.0 | 12.5 | 0.7 |
| TY4Y5U681M15KV | 680 | 20 | 15 | 30.0 | 14.0 | 17.0 | 11.0 | 25.0 | 12.5 | 0.7 |
| TY4Y5U821M15KV | 820 | 20 | 15 | 30.0 | 15.0 | 18.0 | 11.0 | 25.0 | 12.5 | 0.7 |
| TY4Y5U102M15KV | 1000 | 20 | 15 | 30.0 | 16.0 | 19.0 | 11.0 | 25.0 | 12.5 | 0.7 |
| TY4Y5U152M15KV | 1500 | 20 | 15 | 30.0 | 19.0 | 23.0 | 11.0 | 25.0 | 12.5 | 0.7 |
| TY4Y5U222M15KV | 2200 | 20 | 15 | 30.0 | 21.0 | 25.0 | 11.0 | 25.0 | 12.5 | 0.7 |
| TY4Y5U272M15KV | 2700 | 20 | 15 | 30.0 | 22.0 | 26.0 | 11.0 | 25.0 | 12.5 | 0.7 |
| TY4Y5U332M15KV | 3300 | 20 | 15 | 30.0 | 25.0 | 29.0 | 11.0 | 25.0 | 12.5 | 0.7 |
| TY4Y5U472M15KV | 4700 | 20 | 15 | 30.0 | 29.0 | 33.0 | 11.0 | 25.0 | 12.5 | 0.7 |
| TY4Y5U331M20KV | 330 | 20 | 20 | 40.0 | 11.0 | 15.0 | 14.0 | 25.0 | 12.5 | 0.8 |
| TY4Y5U471M20KV | 470 | 20 | 20 | 40.0 | 13.0 | 17.0 | 14.0 | 25.0 | 12.5 | 0.8 |
| TY4Y5U561M20KV | 560 | 20 | 20 | 40.0 | 14.0 | 18.0 | 14.0 | 25.0 | 12.5 | 0.8 |
| TY4Y5U681M20KV | 680 | 20 | 20 | 40.0 | 15.0 | 19.0 | 14.0 | 25.0 | 12.5 | 0.8 |
| TY4Y5U821M20KV | 820 | 20 | 20 | 40.0 | 16.0 | 20.0 | 14.0 | 25.0 | 12.5 | 0.8 |
| TY4Y5U102M20KV | 1000 | 20 | 20 | 40.0 | 17.0 | 21.0 | 14.0 | 25.0 | 12.5 | 0.8 |
| TY4Y5U152M20KV | 1500 | 20 | 20 | 40.0 | 19.0 | 23.0 | 14.0 | 25.0 | 12.5 | 0.8 |
| TY4Y5U222M20KV | 2200 | 20 | 20 | 40.0 | 23.0 | 27.0 | 14.0 | 25.0 | 12.5 | 0.8 |
| TY4Y5U272M20KV | 2700 | 20 | 20 | 40.0 | 24.0 | 28.0 | 14.0 | 25.0 | 12.5 | 0.8 |
| TY4Y5U332M20KV | 3300 | 20 | 20 | 40.0 | 27.0 | 31.0 | 14.0 | 25.0 | 12.5 | 0.8 |

¹Maximum dimension.

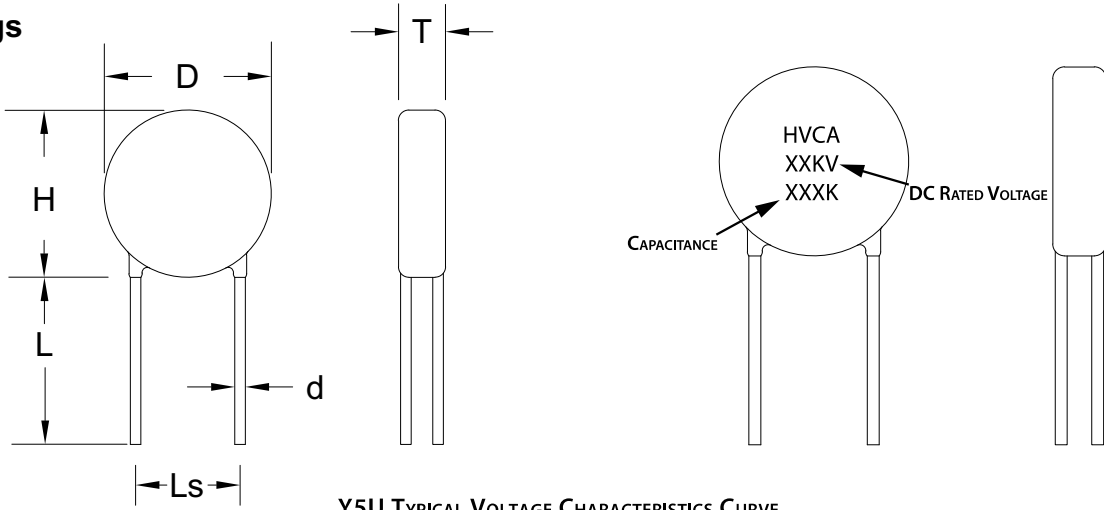
²Minimum dimension.

³LS has a ±1.5mm tolerance.

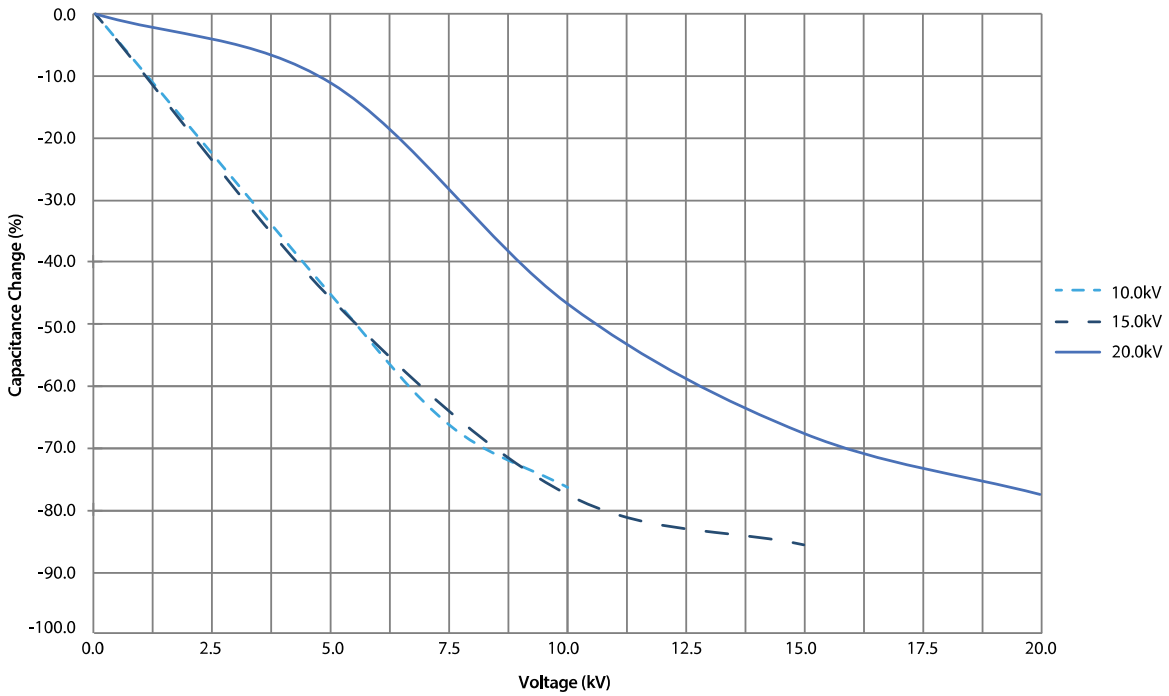
⁴Typical.



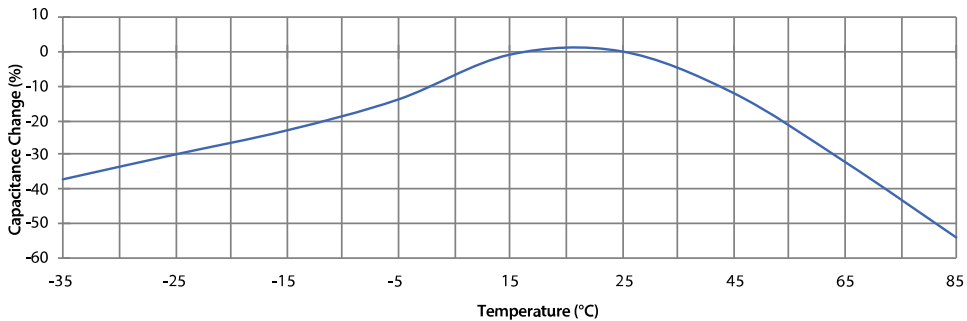
Drawings



Y5U TYPICAL VOLTAGE CHARACTERISTICS CURVE

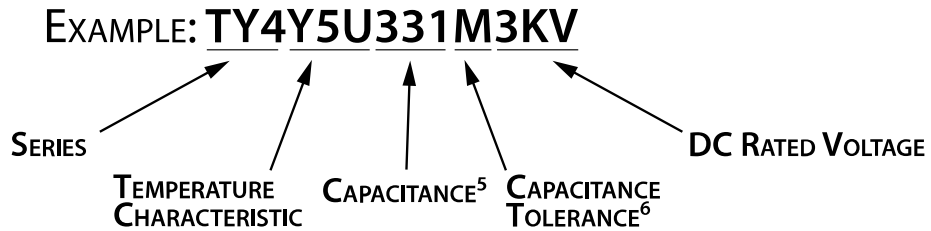


Y5U TYPICAL TEMPERATURE CHARACTERISTICS CURVE





PART NUMBER DECODER:



⁵Capacitance decoder: 102 = 1000pF, expressed by three figures.
The first and second figures are significant digits, and the third figure expresses the number of zeros which follows the two numbers. 0 = x1, 1 = x10, 2 = x100, 3 = x1000

⁶TY4Y5U models are also offered with K and Z capacitance tolerances. Contact the factory for additional information.

Additional Specifications

| Specifications | |
|-----------------------------|---------------|
| Operating Temperature Range | -25 to 100°C |
| Temperature Coefficient | -25 and +85°C |
| Dissipation Factor | 2.5% Max |

Note: Specifications subject to change without notice. Photo is representation only.

