Surface Mount Metallized PPS Film Capacitor

# SPC, Encapsulated Double Metallized, Size 2824 – 6560, 100 – 630 VDC

## Overview

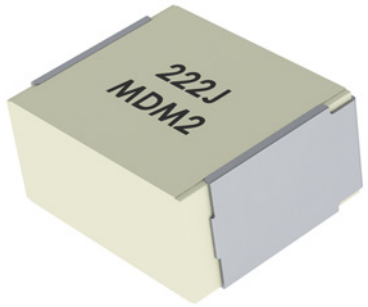
Film capacitor for surface mounting with a double-sided metallized film as the electrode and a plain PPS as the dielectric. A rugged-box encapsulation in a self-extinguishing material meets the requirements of UL 94 V–0. SPC capacitors meet the standards according to IEC 60384–20.

## Applications

The SPC Series is designed for high frequency coupling and decoupling as well as general high speed applications requiring high dV/dt such as pulse operation in switched-mode power supply (SMPS). Not suitable for across-the-line application (see suppressor capacitors).

## Benefits

- Rated voltage: 100 – 630 VDC
- Rated voltage: 63 – 350 VAC
- Capacitance range: 0.00047 – 0.68 µF
- EIA Size: 2824 – 6560
- Capacitance tolerance: ±2%, ±2.5%, ±5%, ±10%
- Climatic category: 55/125/56
- RoHS Compliant and lead-free terminations
- Operating temperature range of −55°C to +125°C




## Customer Part Number

| SPC | 7.3 | 471 | K | 100 | K33 | TR12 |
|---|---|---|---|---|---|---|
| Series | Chip Length (mm) | Capacitance Code (pF) | Capacitance Tolerance | Rated Voltage (VDC) | Size Code | Packaging |
| Double Metallized PPS | 7.3<br>10.2<br>12.7<br>16.5 | First two digits represent significant figures. The third digit specifies number of zeros. | G = ±2%<br>H = ±2.5%<br>J = ±5%<br>K = ±10% | 100<br>250<br>400<br>630 | See Dimension Table | See Ordering Options Table |

## KEMET Internal Part Number

| F | 127 | S | L | 471 | K | 100 | V |
|---|---|---|---|---|---|---|---|
| Capacitor Class | Series | Chip Size | Size Code | Capacitance Code (pF) | Capacitance Tolerance | Rated Voltage (VDC) | Packaging |
| F = Film | Double Metallized PPS | S = 2824<br>W = 4036<br>Y = 5045<br>Z = 6560 | See Dimension Table | First two digits represent significant figures. The third digit specifies number of zeros. | G = ±2%<br>R = ±2.5%<br>J = ±5%<br>K = ±10% | 100<br>250<br>400<br>630 | See Ordering Options Table |

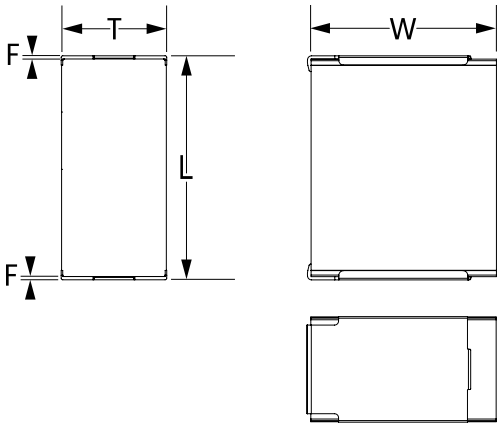


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## Ordering Options Table

| Chip Size (EIA) | Packaging Type | KEMET Packaging Code | Legacy Packaging Code |
|---|---|---|---|
| 2824 | **Standard Packaging Options** | | |
| | Tape & Reel (Standard Reel) | V | TR12 |
| | Bulk (Bag) | A | BULK |
| 4036 | **Standard Packaging Options** | | |
| | Tape & Reel (Horizontal Orientation Standard Reel) | V | TR16 |
| | Bulk (Bag) | A | BULK |
| | **Other Packaging Options** | | |
| | Tape & Reel (Vertical Orientation Standard Reel) | Y | TV24 |
| 5045 | **Standard Packaging Options** | | |
| | Tape & Reel (Standard Reel) | V | TR24 |
| | Bulk (Bag) | A | BULK |
| | **Other Packaging Options** | | |
| | Tape & Reel (Vertical Orientation Standard Reel) | Y | TV24 |
| 6560 | **Standard Packaging Options** | | |
| | Tape & Reel (Standard Reel) | V | TR24 |
| | Bulk (Bag) | A | BULK |
| | **Other Packaging Options** | | |
| | Tape & Reel (Vertical Orientation Standard Reel) | Y | TV44 |

## Dimensions – Millimeters




| KEMET Size Code | Legacy Size Code | Chip Size (EIA) | W | | T | | L | | F | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Nominal | Tolerance | Nominal | Tolerance | Nominal | Tolerance | Nominal | Tolerance |
| SL | K33 | 2824 | 6.0 | ±0.2 | 3.0 | ±0.2 | 7.3 | ±0.2 | 0.5 | Nominal |
| SP | K35 | 2824 | 6.0 | ±0.2 | 3.5 | ±0.2 | 7.3 | ±0.2 | 0.5 | Nominal |
| ST | K37 | 2824 | 6.0 | ±0.2 | 4.5 | ±0.2 | 7.3 | ±0.2 | 0.5 | Nominal |
| WP | A31 | 4036 | 9.1 | ±0.2 | 5.5 | ±0.2 | 10.2 | ±0.2 | 0.5 | Nominal |
| YR | B31 | 5045 | 11.5 | ±0.2 | 6.5 | ±0.2 | 12.7 | ±0.2 | 0.5 | Nominal |
| ZS | C31 | 6560 | 15.0 | ±0.2 | 7.0 | ±0.2 | 16.5 | ±0.2 | 0.5 | Nominal |

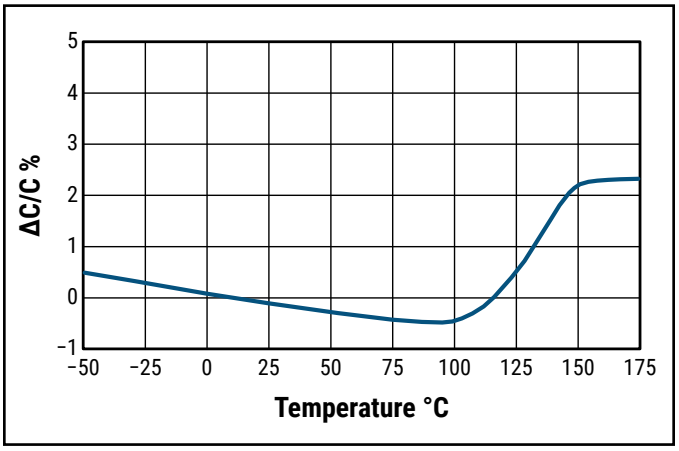
## Environmental Compliance

All KEMET surface mount capacitors are RoHS Compliant.

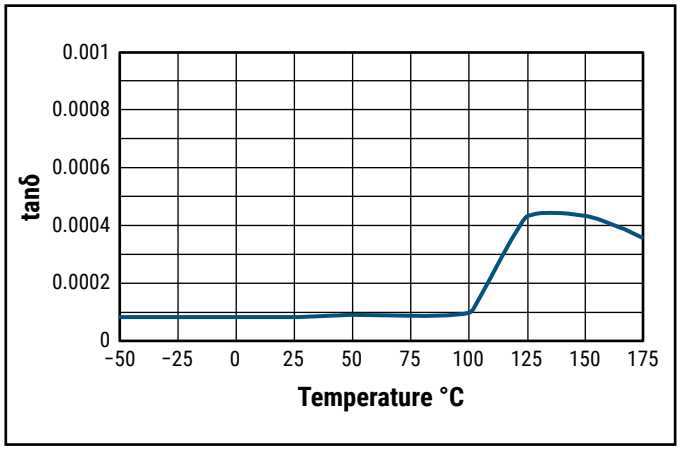
## Performance Characteristics

| | | | | |
|---|---|---|---|---|
| Rated Voltage (VDC) | 100 | 250 | 400 | 630 |
| Rated Voltage (VAC) | 63 | 160 | 250 | 350 |
| Capacitance Range (µF) | 0.00047 – 0.68 | 0.00047 – 0.33 | 0.00047 – 0.15 | 0.00047 – 0.10 |
| Chip Size (EIA) | 2824 – 6560 | | | |
| Capacitance Tolerance | ±2%, ±2.5%, ±5%, ±10% | | | |
| Category Temperature Range | −55°C to +125°C | | | |
| Rated Temperature | +100°C | | | |
| Voltage Derating | The rated voltage should be decreased by 1.25%/°C from +100°C to +125°C and 1.5%/°C from +125°C to 175°C. | | | |
| Climatic Category | 55/125/56 | | | |
| Test Voltage | 1.6 x $V_R$, 60 seconds | | | |
| Insulation Resistance | Measured at +20°C According to IEC 60384–19 | | | |
| | Between Terminals | | | |
| | | C ≤ 0.33 µF | C > 0.33 µF | |
| | $V_R$ ≤ 100 | 15,000 MΩ | 5,000 MΩ • µF | |
| | $V_R$ > 100 | 30,000 MΩ | 10,000 MΩ • µF | |
| Dissipation Factor | Maximum Values at +23°C | | | |
| | | C ≤ 0.1 µF | 0.1 < C < 0.68 µF | |
| | 1 kHz | 0.10% | 0.10% | |
| | 10 kHz | 0.15% | 0.15% | |
| | 100 kHz | 0.20% | 0.40% | |
| Pulse Rise Time | The capacitors can withstand an unlimited number of pulses with a dV/dt, according to Table 1. For voltages (V) lower than the rated voltage ($V_R$), the specified dV/dt can be multiplied by $V_R$/V. | | | |

### Capacitance vs. Temperature




### Dissipation Factor vs. Temperature



## Table 1 – Ratings & Part Number Reference

| VDC | VAC | Capacitance Value (µF) | Size Code (New/ Legacy) | Dimensions in mm | | | Chip Size | dV/dt (V/µs) | New KEMET Part Number | Legacy Part Number |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | B | H | L | | | | |
| 100 | 63 | 0.00047 | SL/K33 | 6.0 | 3.0 | 7.3 | 2824 | 800 | F127SL471(1)100(2) | SPC7.3471(1)100K33(2) |
| 100 | 63 | 0.00068 | SL/K33 | 6.0 | 3.0 | 7.3 | 2824 | 800 | F127SL681(1)100(2) | SPC7.3681(1)100K33(2) |
| 100 | 63 | 0.0010 | SL/K33 | 6.0 | 3.0 | 7.3 | 2824 | 800 | F127SL102(1)100(2) | SPC7.3102(1)100K33(2) |
| 100 | 63 | 0.0015 | SL/K33 | 6.0 | 3.0 | 7.3 | 2824 | 800 | F127SL152(1)100(2) | SPC7.3152(1)100K33(2) |
| 100 | 63 | 0.0022 | SL/K33 | 6.0 | 3.0 | 7.3 | 2824 | 800 | F127SL222(1)100(2) | SPC7.3222(1)100K33(2) |
| 100 | 63 | 0.0033 | SL/K33 | 6.0 | 3.0 | 7.3 | 2824 | 800 | F127SL332(1)100(2) | SPC7.3332(1)100K33(2) |
| 100 | 63 | 0.0047 | SL/K33 | 6.0 | 3.0 | 7.3 | 2824 | 800 | F127SL472(1)100(2) | SPC7.3472(1)100K33(2) |
| 100 | 63 | 0.0068 | SL/K33 | 6.0 | 3.0 | 7.3 | 2824 | 800 | F127SL682(1)100(2) | SPC7.3682(1)100K33(2) |
| 100 | 63 | 0.010 | SL/K33 | 6.0 | 3.0 | 7.3 | 2824 | 800 | F127SL103(1)100(2) | SPC7.3103(1)100K33(2) |
| 100 | 63 | 0.015 | SL/K33 | 6.0 | 3.0 | 7.3 | 2824 | 800 | F127SL153(1)100(2) | SPC7.3153(1)100K33(2) |
| 100 | 63 | 0.022 | SP/K35 | 6.0 | 3.5 | 7.3 | 2824 | 800 | F127SP223(1)100(2) | SPC7.3223(1)100K35(2) |
| 100 | 63 | 0.033 | ST/K37 | 6.0 | 4.5 | 7.3 | 2824 | 800 | F127ST333(1)100(2) | SPC7.3333(1)100K37(2) |
| 100 | 63 | 0.0068 | WP/A31 | 9.1 | 5.5 | 10.2 | 4036 | 600 | F127WP682(1)100(2) | SPC10.2682(1)100A31(2) |
| 100 | 63 | 0.010 | WP/A31 | 9.1 | 5.5 | 10.2 | 4036 | 600 | F127WP103(1)100(2) | SPC10.2103(1)100A31(2) |
| 100 | 63 | 0.015 | WP/A31 | 9.1 | 5.5 | 10.2 | 4036 | 600 | F127WP153(1)100(2) | SPC10.2153(1)100A31(2) |
| 100 | 63 | 0.022 | WP/A31 | 9.1 | 5.5 | 10.2 | 4036 | 600 | F127WP223(1)100(2) | SPC10.2223(1)100A31(2) |
| 100 | 63 | 0.033 | WP/A31 | 9.1 | 5.5 | 10.2 | 4036 | 600 | F127WP333(1)100(2) | SPC10.2333(1)100A31(2) |
| 100 | 63 | 0.047 | WP/A31 | 9.1 | 5.5 | 10.2 | 4036 | 600 | F127WP473(1)100(2) | SPC10.2473(1)100A31(2) |
| 100 | 63 | 0.068 | WP/A31 | 9.1 | 5.5 | 10.2 | 4036 | 600 | F127WP683(1)100(2) | SPC10.2683(1)100A31(2) |
| 100 | 63 | 0.10 | WP/A31 | 9.1 | 5.5 | 10.2 | 4036 | 600 | F127WP104(1)100(2) | SPC10.2104(1)100A31(2) |
| 100 | 63 | 0.15 | YR/B31 | 11.5 | 6.5 | 12.7 | 5045 | 400 | F127YR154(1)100(2) | SPC12.7154(1)100B31(2) |
| 100 | 63 | 0.22 | YR/B31 | 11.5 | 6.5 | 12.7 | 5045 | 400 | F127YR224(1)100(2) | SPC12.7224(1)100B31(2) |
| 100 | 63 | 0.33 | ZS/C31 | 15.0 | 7.0 | 16.5 | 6560 | 150 | F127ZS334(1)100(2) | SPC16.5334(1)100C31(2) |
| 100 | 63 | 0.47 | ZS/C31 | 15.0 | 7.0 | 16.5 | 6560 | 150 | F127ZS474(1)100(2) | SPC16.5474(1)100C31(2) |
| 100 | 63 | 0.68 | ZS/C31 | 15.0 | 7.0 | 16.5 | 6560 | 150 | F127ZS684(1)100(2) | SPC16.5684(1)100C31(2) |
| 250 | 160 | 0.00047 | SL/K33 | 6.0 | 3.0 | 7.3 | 2824 | 1200 | F127SL471(1)250(2) | SPC7.3471(1)250K33(2) |
| 250 | 160 | 0.00068 | SL/K33 | 6.0 | 3.0 | 7.3 | 2824 | 1200 | F127SL681(1)250(2) | SPC7.3681(1)250K33(2) |
| 250 | 160 | 0.0010 | SL/K33 | 6.0 | 3.0 | 7.3 | 2824 | 1200 | F127SL102(1)250(2) | SPC7.3102(1)250K33(2) |
| 250 | 160 | 0.0015 | SL/K33 | 6.0 | 3.0 | 7.3 | 2824 | 1200 | F127SL152(1)250(2) | SPC7.3152(1)250K33(2) |
| 250 | 160 | 0.0022 | SL/K33 | 6.0 | 3.0 | 7.3 | 2824 | 1200 | F127SL222(1)250(2) | SPC7.3222(1)250K33(2) |
| 250 | 160 | 0.0033 | SL/K33 | 6.0 | 3.0 | 7.3 | 2824 | 1200 | F127SL332(1)250(2) | SPC7.3332(1)250K33(2) |
| 250 | 160 | 0.0047 | SL/K33 | 6.0 | 3.0 | 7.3 | 2824 | 1200 | F127SL472(1)250(2) | SPC7.3472(1)250K33(2) |
| 250 | 160 | 0.0068 | SL/K33 | 6.0 | 3.0 | 7.3 | 2824 | 1200 | F127SL682(1)250(2) | SPC7.3682(1)250K33(2) |
| 250 | 160 | 0.010 | SP/K35 | 6.0 | 3.5 | 7.3 | 2824 | 1200 | F127SP103(1)250(2) | SPC7.3103(1)250K35(2) |
| 250 | 160 | 0.015 | ST/K37 | 6.0 | 4.5 | 7.3 | 2824 | 1200 | F127ST153(1)250(2) | SPC7.3153(1)250K37(2) |
| 250 | 160 | 0.0068 | WP/A31 | 9.1 | 5.5 | 10.2 | 4036 | 1000 | F127WP682(1)250(2) | SPC10.2682(1)250A31(2) |
| 250 | 160 | 0.010 | WP/A31 | 9.1 | 5.5 | 10.2 | 4036 | 1000 | F127WP103(1)250(2) | SPC10.2103(1)250A31(2) |
| 250 | 160 | 0.015 | WP/A31 | 9.1 | 5.5 | 10.2 | 4036 | 1000 | F127WP153(1)250(2) | SPC10.2153(1)250A31(2) |
| 250 | 160 | 0.022 | WP/A31 | 9.1 | 5.5 | 10.2 | 4036 | 1000 | F127WP223(1)250(2) | SPC10.2223(1)250A31(2) |
| 250 | 160 | 0.033 | WP/A31 | 9.1 | 5.5 | 10.2 | 4036 | 1000 | F127WP333(1)250(2) | SPC10.2333(1)250A31(2) |
| **VDC** | **VAC** | **Capacitance Value (µF)** | **Size Code (New/Legacy)** | **B (mm)** | **H (mm)** | **L (mm)** | **Chip Size** | **dV/dt (V/µs)** | **New KEMET Part Number** | **Legacy Part Number** |

*(1) G = ±2%, R = ±2.5% (Legacy code = H), J = ±5%, K = ±10%.*
*(2) Insert ordering code for lead type and packaging. See Ordering Options Table for available options.*

## Table 1 – Ratings & Part Number Reference cont.

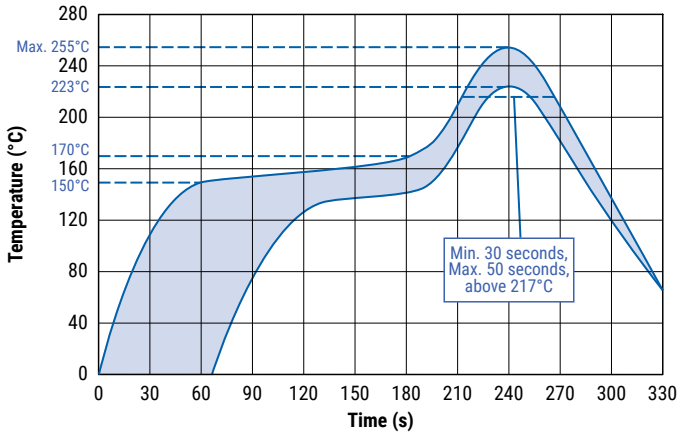
| VDC | VAC | Capacitance Value (µF) | Size Code (New/ Legacy) | Dimensions in mm | | | Chip Size | dV/dt (V/µs) | New KEMET Part Number | Legacy Part Number |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | B | H | L | | | | |
| 250 | 160 | 0.047 | WP/A31 | 9.1 | 5.5 | 10.2 | 4036 | 1000 | F127WP473(1)250(2) | SPC10.2473(1)250A31(2) |
| 250 | 160 | 0.068 | YR/B31 | 11.5 | 6.5 | 12.7 | 5045 | 700 | F127YR683(1)250(2) | SPC12.7683(1)250B31(2) |
| 250 | 160 | 0.10 | YR/B31 | 11.5 | 6.5 | 12.7 | 5045 | 700 | F127YR104(1)250(2) | SPC12.7104(1)250B31(2) |
| 250 | 160 | 0.15 | ZS/C31 | 15.0 | 7.0 | 16.5 | 6560 | 350 | F127ZS154(1)250(2) | SPC16.5154(1)250C31(2) |
| 250 | 160 | 0.22 | ZS/C31 | 15.0 | 7.0 | 16.5 | 6560 | 350 | F127ZS224(1)250(2) | SPC16.5224(1)250C31(2) |
| 250 | 160 | 0.33 | ZS/C31 | 15.0 | 7.0 | 16.5 | 6560 | 350 | F127ZS334(1)250(2) | SPC16.5334(1)250C31(2) |
| 400 | 250 | 0.00047 | SL/K33 | 6.0 | 3.0 | 7.3 | 2824 | 1600 | F127SL471(1)400(2) | SPC7.3471(1)400K33(2) |
| 400 | 250 | 0.00068 | SL/K33 | 6.0 | 3.0 | 7.3 | 2824 | 1600 | F127SL681(1)400(2) | SPC7.3681(1)400K33(2) |
| 400 | 250 | 0.0010 | SL/K33 | 6.0 | 3.0 | 7.3 | 2824 | 1600 | F127SL102(1)400(2) | SPC7.3102(1)400K33(2) |
| 400 | 250 | 0.0015 | SL/K33 | 6.0 | 3.0 | 7.3 | 2824 | 1600 | F127SL152(1)400(2) | SPC7.3152(1)400K33(2) |
| 400 | 250 | 0.0022 | SL/K33 | 6.0 | 3.0 | 7.3 | 2824 | 1600 | F127SL222(1)400(2) | SPC7.3222(1)400K33(2) |
| 400 | 250 | 0.0033 | SL/K33 | 6.0 | 3.0 | 7.3 | 2824 | 1600 | F127SL332(1)400(2) | SPC7.3332(1)400K33(2) |
| 400 | 250 | 0.0047 | SP/K35 | 6.0 | 3.5 | 7.3 | 2824 | 1600 | F127SP472(1)400(2) | SPC7.3472(1)400K35(2) |
| 400 | 250 | 0.0068 | ST/K37 | 6.0 | 4.5 | 7.3 | 2824 | 1600 | F127ST682(1)400(2) | SPC7.3682(1)400K37(2) |
| 400 | 250 | 0.0068 | WP/A31 | 9.1 | 5.5 | 10.2 | 4036 | 1300 | F127WP682(1)400(2) | SPC10.2682(1)400A31(2) |
| 400 | 250 | 0.010 | WP/A31 | 9.1 | 5.5 | 10.2 | 4036 | 1300 | F127WP103(1)400(2) | SPC10.2103(1)400A31(2) |
| 400 | 250 | 0.015 | WP/A31 | 9.1 | 5.5 | 10.2 | 4036 | 1300 | F127WP153(1)400(2) | SPC10.2153(1)400A31(2) |
| 400 | 250 | 0.022 | WP/A31 | 9.1 | 5.5 | 10.2 | 4036 | 1300 | F127WP223(1)400(2) | SPC10.2223(1)400A31(2) |
| 400 | 250 | 0.033 | YR/B31 | 11.5 | 6.5 | 12.7 | 5045 | 900 | F127YR333(1)400(2) | SPC12.7333(1)400B31(2) |
| 400 | 250 | 0.047 | YR/B31 | 11.5 | 6.5 | 12.7 | 5045 | 900 | F127YR473(1)400(2) | SPC12.7473(1)400B31(2) |
| 400 | 250 | 0.068 | ZS/C31 | 15.0 | 7.0 | 16.5 | 6560 | 450 | F127ZS683(1)400(2) | SPC16.5683(1)400C31(2) |
| 400 | 250 | 0.10 | ZS/C31 | 15.0 | 7.0 | 16.5 | 6560 | 450 | F127ZS104(1)400(2) | SPC16.5104(1)400C31(2) |
| 400 | 250 | 0.15 | ZS/C31 | 15.0 | 7.0 | 16.5 | 6560 | 450 | F127ZS154(1)400(2) | SPC16.5154(1)400C31(2) |
| 630 | 350 | 0.00047 | SL/K33 | 6.0 | 3.0 | 7.3 | 2824 | 2000 | F127SL471(1)630(2) | SPC7.3471(1)630K33(2) |
| 630 | 350 | 0.00068 | SL/K33 | 6.0 | 3.0 | 7.3 | 2824 | 2000 | F127SL681(1)630(2) | SPC7.3681(1)630K33(2) |
| 630 | 350 | 0.0010 | SL/K33 | 6.0 | 3.0 | 7.3 | 2824 | 2000 | F127SL102(1)630(2) | SPC7.3102(1)630K33(2) |
| 630 | 350 | 0.0015 | SL/K33 | 6.0 | 3.0 | 7.3 | 2824 | 2000 | F127SL152(1)630(2) | SPC7.3152(1)630K33(2) |
| 630 | 350 | 0.0022 | SL/K33 | 6.0 | 3.0 | 7.3 | 2824 | 2000 | F127SL222(1)630(2) | SPC7.3222(1)630K33(2) |
| 630 | 350 | 0.0033 | SP/K35 | 6.0 | 3.5 | 7.3 | 2824 | 2000 | F127SP332(1)630(2) | SPC7.3332(1)630K35(2) |
| 630 | 350 | 0.0047 | ST/K37 | 6.0 | 4.5 | 7.3 | 2824 | 2000 | F127ST472(1)630(2) | SPC7.3472(1)630K37(2) |
| 630 | 350 | 0.0068 | WP/A31 | 9.1 | 5.5 | 10.2 | 4036 | 1600 | F127WP682(1)630(2) | SPC10.2682(1)630A31(2) |
| 630 | 350 | 0.010 | WP/A31 | 9.1 | 5.5 | 10.2 | 4036 | 1600 | F127WP103(1)630(2) | SPC10.2103(1)630A31(2) |
| 630 | 350 | 0.015 | WP/A31 | 9.1 | 5.5 | 10.2 | 4036 | 1600 | F127WP153(1)630(2) | SPC10.2153(1)630A31(2) |
| 630 | 350 | 0.022 | YR/B31 | 11.5 | 6.5 | 12.7 | 5045 | 1100 | F127YR223(1)630(2) | SPC12.7223(1)630B31(2) |
| 630 | 350 | 0.033 | YR/B31 | 11.5 | 6.5 | 12.7 | 5045 | 1100 | F127YR333(1)630(2) | SPC12.7333(1)630B31(2) |
| 630 | 350 | 0.047 | ZS/C31 | 15.0 | 7.0 | 16.5 | 6560 | 550 | F127ZS473(1)630(2) | SPC16.5473(1)630C31(2) |
| 630 | 350 | 0.068 | ZS/C31 | 15.0 | 7.0 | 16.5 | 6560 | 550 | F127ZS683(1)630(2) | SPC16.5683(1)630C31(2) |
| 630 | 350 | 0.10 | ZS/C31 | 15.0 | 7.0 | 16.5 | 6560 | 550 | F127ZS104(1)630(2) | SPC16.5104(1)630C31(2) |
| **VDC** | **VAC** | **Capacitance Value (µF)** | **Size Code (New/Legacy)** | **B (mm)** | **H (mm)** | **L (mm)** | **Chip Size** | **dV/dt (V/µs)** | **New KEMET Part Number** | **Legacy Part Number** |

*(1) G = ±2%, R = ±2.5% (Legacy code = H), J = ±5%, K = ±10%.*
*(2) Insert ordering code for lead type and packaging. See Ordering Options Table for available options.*

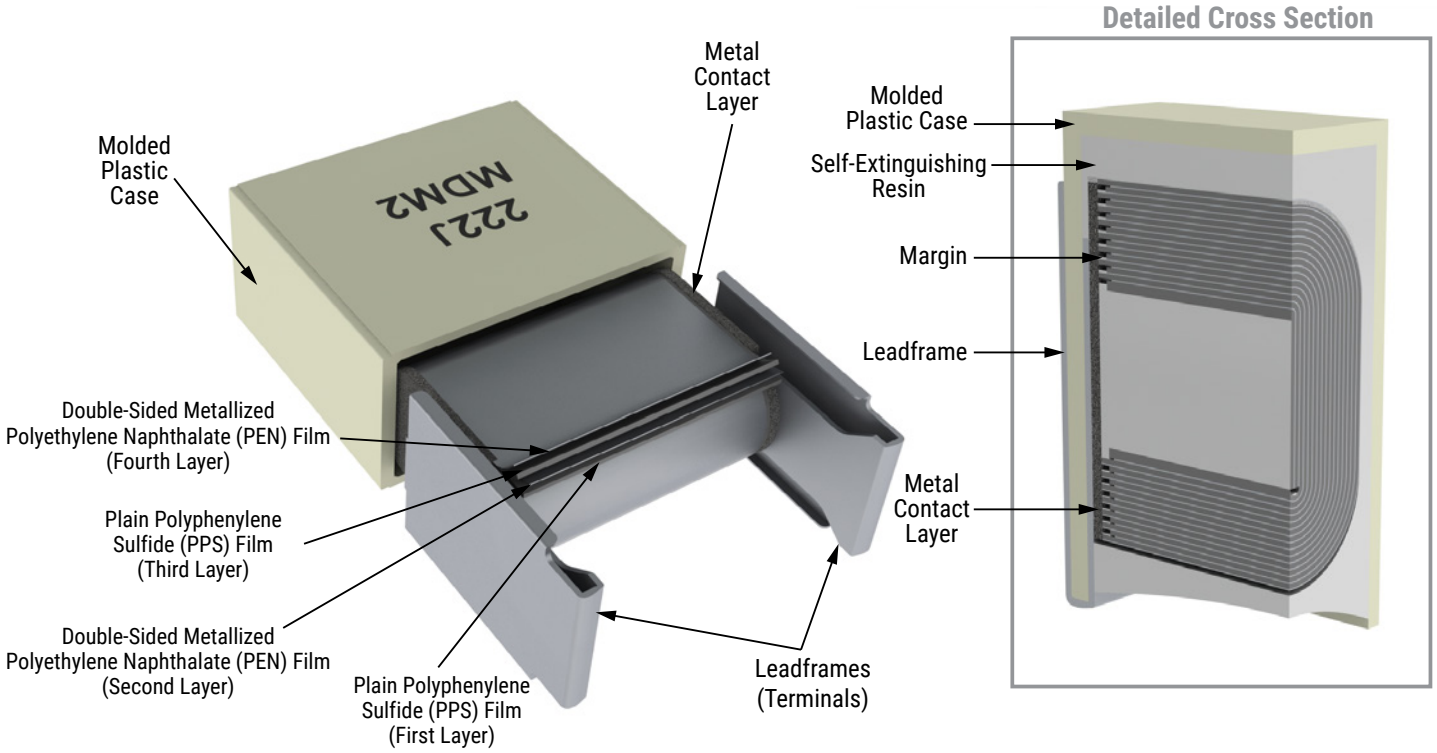
## Soldering Process

**Reflow soldering temperature is measured on the top surface of the component:** Preheating temperature should be less than 170°C. The time above 217°C should be less than 50 seconds. The peak temperature must not exceed 260°C.

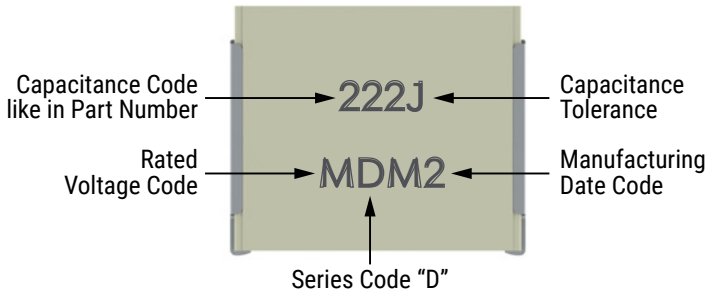
| Reflow | |
|---|---|
| Test Conditions | See Solder Process |
| Performance | |
| Capacitance Change \|Δ C/C\| | ≤ 3% |




## Construction



## Marking




| Rated Voltage | Code |
|---|---|
| 100 VDC | D |
| 250 VDC | H |
| 400 VDC | K |
| 630 VDC | M |

| Manufacturing Date Code (IEC 60062) | | | |
|---|---|---|---|
| Year | Code | Month | Code |
| 2020 | M | January | 1 |
| 2021 | N | February | 2 |
| 2022 | P | March | 3 |
| 2023 | R | April | 4 |
| 2024 | S | May | 5 |
| 2025 | T | June | 6 |
| 2026 | U | July | 7 |
| 2027 | V | August | 8 |
| 2028 | W | September | 9 |
| 2029 | X | October | O |
| 2030 | A | November | N |
| 2031 | B | December | D |
| 2032 | C | | |
| 2033 | D | | |
| 2034 | E | | |
| 2035 | F | | |
| 2036 | H | | |
| 2037 | J | | |
| 2038 | K | | |
| 2039 | L | | |
| 2040 | M | | |

## Flux & Cleaning

KEMET recommends using a no-clean flux with a halogen content lower than 0.1%. To clean the PCB assembly KEMET recommends to use a suitable solvent like Isopropyl alcohol, deionized water, or neutral pH detergents. Aggressive solvents shall not be used. For any different cleaning solvent used please contact KEMET Technical Services to analyze the potential impact on KEMET products.

## Storage and Moisture Recommendations

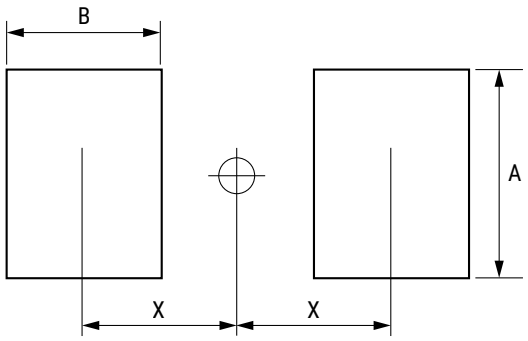
KEMET SMD Film Capacitors are supplied in a MBB (Moisture Barrier Bag) Class 1. We can guarantee a 24 month shelf life (temperature ≤ 40°C/relative humidity ≤ 90%). After the MBB has been opened, components may stay in areas with controlled temperature and humidity (temperature ≤ 30°C/relative humidity ≤ 60%) for 696 hours [MSL 2a]. For longer periods of time and/or higher temperature and/or higher relative humidity values, it is absolutely necessary to protect the components against humidity. If the reel inside the MBB is partially used, KEMET recommends to re-use the same MBB or to avoid areas without controlled temperature and humidity (see above). If the above conditions are not respected, components require a baking (minimum time: 48 hours at 55 ±5°C) before the reflow.

## Packaging Quantities

| Chip Size (EIA) | Base (mm) | Height (mm) | Length (mm) | Bulk | Reel Horizontal Orientation | Reel Vertical Orientation |
|---|---|---|---|---|---|---|
| 2824 | 6.0 | 3.0 | 7.3 | 2,000 | 2,500 | |
| 2824 | 6.0 | 3.5 | 7.3 | 2,000 | 2,300 | |
| 2824 | 6.0 | 4.5 | 7.3 | 1,000 | 1,700 | |
| 4036 | 9.1 | 5.5 | 10.2 | 1,000 | 800 | 500 |
| 5045 | 11.5 | 6.5 | 12.7 | 1,000 | 600 | 400 |
| 6560 | 15.0 | 7.0 | 16.5 | 800 | 500 | 200 |

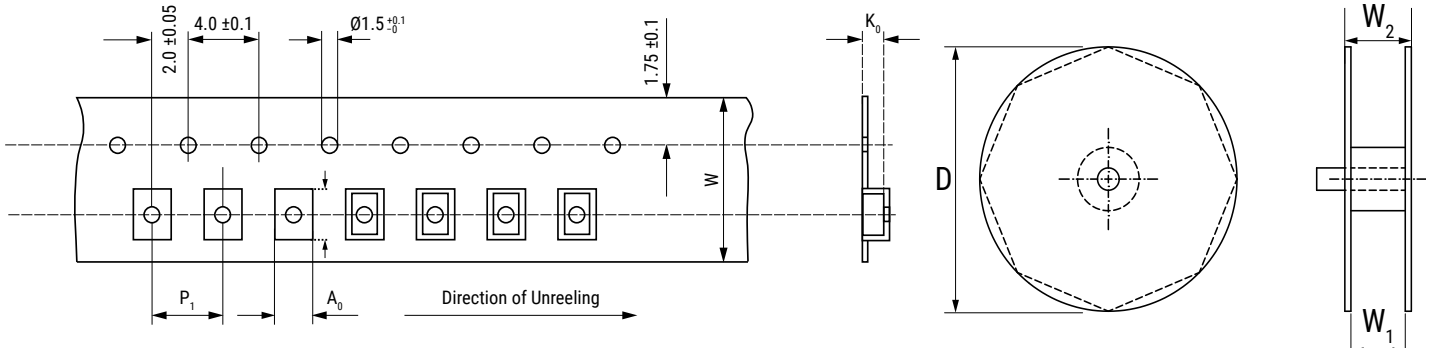
## Landing

| Mounting | Chip Size | Dimensions in mm | | |
|---|---|---|---|---|
| | | A | B | X |
| Horizontal | 2220 | 5.1 | 1.5 | 3.0 |
| | 2824 | 6.1 | 1.5 | 3.8 |
| | 4036 | 9.1 | 2.0 | 5.5 |
| | 5045 | 11.6 | 2.5 | 7.0 |
| | 6560 | 15.0 | 3.0 | 9.0 |
| Vertical | 4022 | 5.6 | 2.0 | 5.5 |
| | 5026 | 6.6 | 2.5 | 7.0 |
| | 6528 | 7.1 | 3.0 | 9.0 |



# Carrier Taping & Packaging (IEC 60286–2)

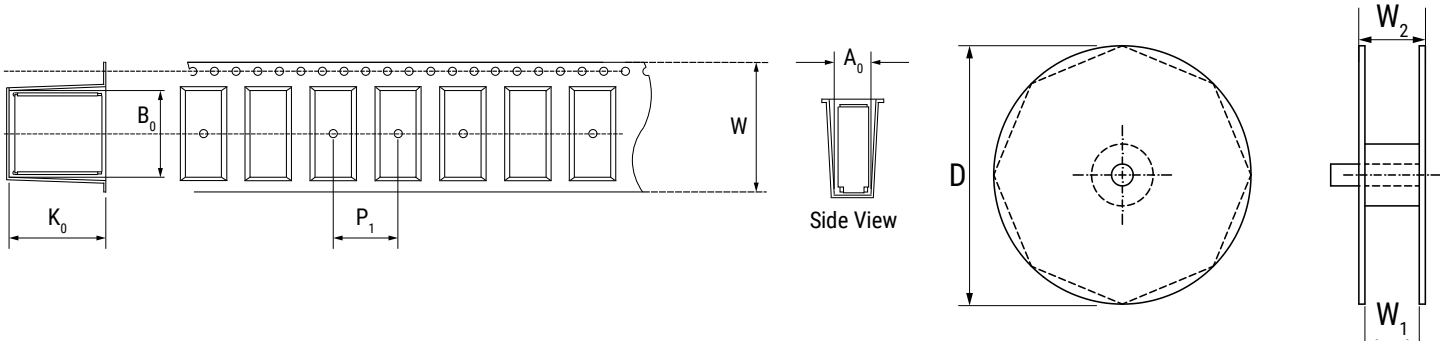
## Horizontal Taping Orientation




| EIA Size Code Horizontal Mounting | Size Code | Dimensions in mm | | | Taping Specification | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | B | H | L | W | $P_1$ | $A_0$ | $B_0$ | $K_0$ | D | $W_1$ | $W_2$ |
| | | Nominal | Nominal | Nominal | −0/+0.3 | ±0.1 | Nominal | Nominal | Nominal | ±2.0 | −0/+2 | Maximum |
| 2220 | PP | 5.0 | 3.0 | 5.7 | 12.0 | 8.0 | 5.5 | 6.0 | 3.3 | 330 | 12.4 | 22.0 |
| 2220 | PU | 5.0 | 4.0 | 5.7 | 12.0 | 8.0 | 5.5 | 6.0 | 4.3 | 330 | 12.4 | 22.0 |
| 2824 | SL | 6.0 | 3.0 | 7.3 | 12.0 | 8.0 | 6.5 | 7.5 | 3.3 | 330 | 12.4 | 22.0 |
| 2824 | SP | 6.0 | 3.5 | 7.3 | 12.0 | 8.0 | 6.5 | 7.5 | 3.8 | 330 | 12.4 | 22.0 |
| 2824 | ST | 6.0 | 4.5 | 7.3 | 16.0 | 8.0 | 6.6 | 7.9 | 5.5 | 330 | 16.4 | 22.0 |
| 4036 | WP | 9.1 | 5.5 | 10.2 | 16.0 | 16.0 | 9.5 | 10.5 | 5.8 | 330 | 16.4 | 22.0 |
| 5045 | YR | 11.5 | 6.5 | 12.7 | 24.0 | 16.0 | 11.9 | 13.1 | 6.8 | 330 | 24.4 | 30.0 |
| 6560 | ZS | 15.0 | 7.0 | 16.5 | 24.0 | 20.0 | 15.4 | 16.8 | 7.3 | 330 | 24.4 | 30.0 |

# Carrier Taping & Packaging (IEC 60286–2) cont.

## Vertical Taping Orientation




| Size Code Vertical Mounting | Dimensions in mm | | | Taping Specification | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | B | H | L | W | $P_1$ | $A_0$ | $B_0$ | $K_0$ | D | $W_1$ | $W_2$ |
| | Nominal | Nominal | Nominal | −0/+0.3 | ±0.1 | Nominal | Nominal | Nominal | ±2.0 | −0/+2 | Maximum |
| 4022 | 5.5 | 9.1 | 10.2 | 24.0 | 16.0 | 6.0 | 10.5 | 9.3 | 330 | 24.4 | 30.0 |
| 5026 | 6.5 | 11.5 | 12.7 | 24.0 | 16.0 | 6.9 | 13.1 | 11.8 | 330 | 24.4 | 30.0 |
| 6528 | 7.0 | 15.0 | 16.5 | 44.0 | 20.0 | 7.5 | 17.0 | 15.3 | 330 | 44.5 | 49.5 |
| **Note: Chip dimensions B and H correspond to dimensions H and B in the horizontal mounting table.** | | | | | | | | | | | |

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