

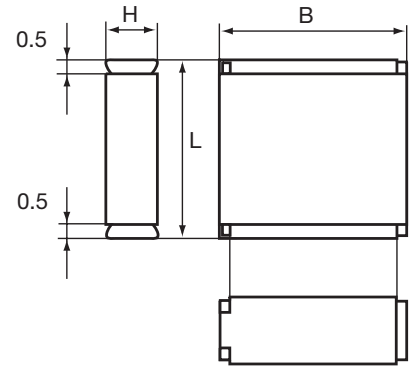
- Metallized polyester (PET) SMD
- According to IEC 60384-19

TYPICAL APPLICATIONS

Bypassing, signal coupling. General purpose for highest reliability.

CONSTRUCTION

Polyester (PET) film capacitor for surface mounting. Encapsulation in self-extinguishing material meeting the requirements of UL 94V-0.



Components may be vertically mounted for decreased footprint. See page 20.

TECHNICAL DATA

| | | | | | |
|--|-----------|----------|----------|----------|---------|
| Rated voltage U_R, VDC | 50 | 63 | 100 | 250 | 400 |
| Rated voltage U_R, VAC | 30 | 40 | 63 | 160 | 200 |
| Capacitance range, nF | 1 - 15000 | 1 - 4700 | 1 - 3300 | 1 - 1000 | 1 - 470 |

Capacitance tolerance $\pm 10\%$, $\pm 5\%$; other tolerances on request.

Category temperature range -55°C to $+100^\circ\text{C}$

Rated temperature $+85^\circ\text{C}$

Voltage derating The rated voltage is decreased with $1.25\%/^\circ\text{C}$ from $+85^\circ\text{C}$.

Climatic category 55/100/56

Test voltage $1.6 \times U_R$, 60s

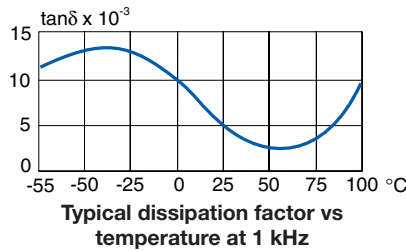
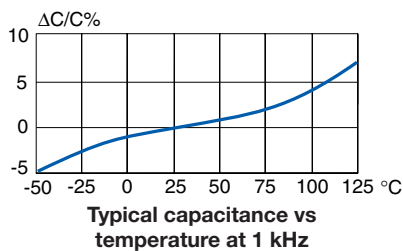
Insulation resistance Minimum value between terminals
Measured at $+20^\circ\text{C}$ according to IEC 60384-19

| | | |
|--------------------------|---------------------------|------------------------|
| | $C \leq 0.33 \mu\text{F}$ | $C > 0.33 \mu\text{F}$ |
| $U_R \leq 100 \text{ V}$ | 10 000 M Ω | 3000 s |
| $U_R > 100 \text{ V}$ | 30 000 M Ω | 10 000 s |

Dissipation factor Max values at $+23^\circ\text{C}$

| | $C \leq 100\text{nF}$ | $100\text{nF} < C < 1\mu\text{F}$ | $1\mu\text{F} \leq C \leq 10\mu\text{F}$ | $C > 10\mu\text{F}$ |
|---------|-----------------------|-----------------------------------|--|---------------------|
| 1 kHz | 0.8% | 0.8% | 0.8% | 0.8% |
| 10 kHz | 1.2% | 1.2% | 1.5% | 3.0% |
| 100 kHz | 2.5% | 3.0% | | |

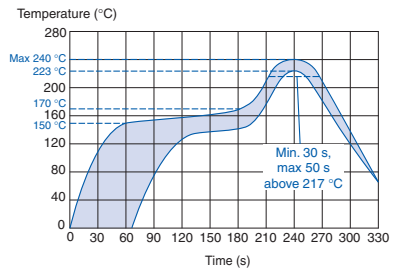
Pulse rise time The capacitors can withstand an unlimited number of pulses with a dU/dt according to article table. For voltages (U) lower than the rated voltage (U_R), the specified dU/dt can be multiplied by U_R/U .



RECOMMENDED SOLDERING CONDITIONS

Reflow soldering temperature measured on the top body surface of the component

Preheating temperature should be less than 170°C . The time above 217°C should be less than 50 s. The peak temperature must not exceed 240°C .



MARKING

- Rated capacitance
- Capacitance tolerance code
- Rated voltage code
- Capacitor type M for MMC
- Manufacturing date code according to IEC 60062 (year, month)

See also page 18.

ORDERING INFORMATION

See article table and page 10 for options and article code construction.

ARTICLE TABLE

| Capacitance μF | Size code | Dimensions in mm ± 0.2 | | Max dU/dt V/ μs | Article code | Capacitance μF | Size code | Dimensions in mm ± 0.2 | | Max dU/dt V/ μs | Article code |
|-------------------------------------|--------------|-------------------------------|-----|----------------------------------|-----------------------|--------------------------------------|--------------|-------------------------------|-----|----------------------------------|------------------------|
| | | B | H | | | | | B | H | | |
| 50 VDC/30 VAC | | | | | | 50 VDC/30 VAC | | | | | |
| CHIP LENGTH 5.7 MM CODE 2220 | | | | | | CHIP LENGTH 7.3 MM CODE 2824 | | | | | |
| 0.0010 | J31 | 5.0 | 2.5 | 40 | MMC5.7 102K50J31 TR12 | 0.33 | K35 | 6.0 | 3.5 | 25 | MMC7.3 334K50K35 TR12 |
| 0.0012 | J31 | 5.0 | 2.5 | 40 | MMC5.7 122K50J31 TR12 | 0.39 | K35 | 6.0 | 3.5 | 25 | MMC7.3 394K50K35 TR12 |
| 0.0015 | J31 | 5.0 | 2.5 | 40 | MMC5.7 152K50J31 TR12 | 0.47 | K35 | 6.0 | 3.5 | 25 | MMC7.3 474K50K35 TR12 |
| 0.0018 | J31 | 5.0 | 2.5 | 40 | MMC5.7 182K50J31 TR12 | 0.56 | K37 | 6.0 | 4.5 | 12 | MMC7.3 564K50K37 TR12 |
| 0.0022 | J31 | 5.0 | 2.5 | 40 | MMC5.7 222K50J31 TR12 | 0.68 | K37 | 6.0 | 4.5 | 12 | MMC7.3 684K50K37 TR12 |
| 0.0027 | J31 | 5.0 | 2.5 | 40 | MMC5.7 272K50J31 TR12 | 0.82 | K37 | 6.0 | 4.5 | 12 | MMC7.3 824K50K37 TR12 |
| 0.0033 | J31 | 5.0 | 2.5 | 40 | MMC5.7 332K50J31 TR12 | 1.0 | K37 | 6.0 | 4.5 | 12 | MMC7.3 105K50K37 TR12 |
| 0.0039 | J31 | 5.0 | 2.5 | 40 | MMC5.7 392K50J31 TR12 | CHIP LENGTH 10.2 MM CODE 4036 | | | | | |
| 0.0047 | J31 | 5.0 | 2.5 | 40 | MMC5.7 472K50J31 TR12 | 0.022 | A31 | 9.1 | 5.5 | 40 | MMC10.2 223K50A31 TR16 |
| 0.0056 | J31 | 5.0 | 2.5 | 40 | MMC5.7 562K50J31 TR12 | 0.027 | A31 | 9.1 | 5.5 | 40 | MMC10.2 273K50A31 TR16 |
| 0.0068 | J31 | 5.0 | 2.5 | 40 | MMC5.7 682K50J31 TR12 | 0.033 | A31 | 9.1 | 5.5 | 40 | MMC10.2 333K50A31 TR16 |
| 0.0082 | J31 | 5.0 | 2.5 | 40 | MMC5.7 822K50J31 TR12 | 0.039 | A31 | 9.1 | 5.5 | 40 | MMC10.2 393K50A31 TR16 |
| 0.010 | J31 | 5.0 | 2.5 | 40 | MMC5.7 103K50J31 TR12 | 0.047 | A31 | 9.1 | 5.5 | 40 | MMC10.2 473K50A31 TR16 |
| 0.012 | J31 | 5.0 | 2.5 | 40 | MMC5.7 123K50J31 TR12 | 0.056 | A31 | 9.1 | 5.5 | 40 | MMC10.2 563K50A31 TR16 |
| 0.015 | J31 | 5.0 | 2.5 | 30 | MMC5.7 153K50J31 TR12 | 0.068 | A31 | 9.1 | 5.5 | 40 | MMC10.2 683K50A31 TR16 |
| 0.018 | J31 | 5.0 | 2.5 | 30 | MMC5.7 183K50J31 TR12 | 0.082 | A31 | 9.1 | 5.5 | 40 | MMC10.2 823K50A31 TR16 |
| 0.022 | J31 | 5.0 | 2.5 | 30 | MMC5.7 223K50J31 TR12 | 0.10 | A31 | 9.1 | 5.5 | 30 | MMC10.2 104K50A31 TR16 |
| 0.027 | J31 | 5.0 | 2.5 | 30 | MMC5.7 273K50J31 TR12 | 0.12 | A31 | 9.1 | 5.5 | 30 | MMC10.2 124K50A31 TR16 |
| 0.033 | J31 | 5.0 | 2.5 | 30 | MMC5.7 333K50J31 TR12 | 0.15 | A31 | 9.1 | 5.5 | 30 | MMC10.2 154K50A31 TR16 |
| 0.039 | J31 | 5.0 | 2.5 | 30 | MMC5.7 393K50J31 TR12 | 0.18 | A31 | 9.1 | 5.5 | 20 | MMC10.2 184K50A31 TR16 |
| 0.047 | J31 | 5.0 | 2.5 | 30 | MMC5.7 473K50J31 TR12 | 0.22 | A31 | 9.1 | 5.5 | 20 | MMC10.2 224K50A31 TR16 |
| 0.056 | J31 | 5.0 | 2.5 | 30 | MMC5.7 563K50J31 TR12 | 0.27 | A31 | 9.1 | 5.5 | 20 | MMC10.2 274K50A31 TR16 |
| 0.068 | J31 | 5.0 | 2.5 | 20 | MMC5.7 683K50J31 TR12 | 0.33 | A31 | 9.1 | 5.5 | 20 | MMC10.2 334K50A31 TR16 |
| 0.082 | J31 | 5.0 | 2.5 | 20 | MMC5.7 823K50J31 TR12 | 0.39 | A31 | 9.1 | 5.5 | 20 | MMC10.2 394K50A31 TR16 |
| 0.10 | J31 | 5.0 | 2.5 | 20 | MMC5.7 104K50J31 TR12 | 0.47 | A31 | 9.1 | 5.5 | 20 | MMC10.2 474K50A31 TR16 |
| 0.12 | J33 | 5.0 | 3.0 | 20 | MMC5.7 124K50J33 TR12 | 0.56 | A31 | 9.1 | 5.5 | 12 | MMC10.2 564K50A31 TR16 |
| 0.15 | J33 | 5.0 | 3.0 | 20 | MMC5.7 154K50J33 TR12 | 0.68 | A31 | 9.1 | 5.5 | 12 | MMC10.2 684K50A31 TR16 |
| 0.18 | J35 | 5.0 | 4.0 | 20 | MMC5.7 184K50J35 TR12 | 0.82 | A31 | 9.1 | 5.5 | 12 | MMC10.2 824K50A31 TR16 |
| 0.22 | J35 | 5.0 | 4.0 | 20 | MMC5.7 224K50J35 TR12 | 1.0 | A31 | 9.1 | 5.5 | 12 | MMC10.2 105K50A31 TR16 |
| CHIP LENGTH 7.3 MM CODE 2824 | | | | | | 1.2 | A31 | 9.1 | 5.5 | 12 | MMC10.2 125K50A31 TR16 |
| 0.0010 | K31 | 6.0 | 2.5 | 50 | MMC7.3 102K50K31 TR12 | 1.5 | A31 | 9.1 | 5.5 | 12 | MMC10.2 155K50A31 TR16 |
| 0.0012 | K31 | 6.0 | 2.5 | 50 | MMC7.3 122K50K31 TR12 | 1.8 | A31 | 9.1 | 5.5 | 12 | MMC10.2 185K50A31 TR16 |
| 0.0015 | K31 | 6.0 | 2.5 | 50 | MMC7.3 152K50K31 TR12 | 2.2 | A31 | 9.1 | 5.5 | 12 | MMC10.2 225K50A31 TR16 |
| 0.0018 | K31 | 6.0 | 2.5 | 50 | MMC7.3 182K50K31 TR12 | CHIP LENGTH 12.7 MM CODE 5045 | | | | | |
| 0.0022 | K31 | 6.0 | 2.5 | 50 | MMC7.3 222K50K31 TR12 | 2.7 | B31 | 11.5 | 6.5 | 8 | MMC12.7 275K50B31 TR24 |
| 0.0027 | K31 | 6.0 | 2.5 | 50 | MMC7.3 272K50K31 TR12 | 3.3 | B31 | 11.5 | 6.5 | 8 | MMC12.7 335K50B31 TR24 |
| 0.0033 | K31 | 6.0 | 2.5 | 50 | MMC7.3 332K50K31 TR12 | 3.9 | B31 | 11.5 | 6.5 | 8 | MMC12.7 395K50B31 TR24 |
| 0.0039 | K31 | 6.0 | 2.5 | 50 | MMC7.3 392K50K31 TR12 | 4.7 | B31 | 11.5 | 6.5 | 8 | MMC12.7 475K50B31 TR24 |
| 0.0047 | K31 | 6.0 | 2.5 | 50 | MMC7.3 472K50K31 TR12 | CHIP LENGTH 16.5 MM CODE 6560 | | | | | |
| 0.0056 | K31 | 6.0 | 2.5 | 50 | MMC7.3 562K50K31 TR12 | 5.6 | C31 | 15.0 | 7.0 | 5 | MMC16.5 565K50C31 TR24 |
| 0.0068 | K31 | 6.0 | 2.5 | 40 | MMC7.3 682K50K31 TR12 | 6.8 | C31 | 15.0 | 7.0 | 5 | MMC16.5 685K50C31 TR24 |
| 0.0082 | K31 | 6.0 | 2.5 | 40 | MMC7.3 822K50K31 TR12 | 8.2 | C31 | 15.0 | 7.0 | 5 | MMC16.5 825K50C31 TR24 |
| 0.010 | K31 | 6.0 | 2.5 | 40 | MMC7.3 103K50K31 TR12 | 10.0 | C31 | 15.0 | 7.0 | 5 | MMC16.5 106K50C31 TR24 |
| 0.012 | K31 | 6.0 | 2.5 | 40 | MMC7.3 123K50K31 TR12 | 12.0 | C31 | 15.0 | 7.0 | 5 | MMC16.5 126K50C31 TR24 |
| 0.015 | K31 | 6.0 | 2.5 | 40 | MMC7.3 153K50K31 TR12 | 15.0 | C31 | 15.0 | 7.0 | 5 | MMC16.5 156K50C31 TR24 |
| 0.018 | K31 | 6.0 | 2.5 | 40 | MMC7.3 183K50K31 TR12 | 63 VDC/40 VAC | | | | | |
| 0.022 | K31 | 6.0 | 2.5 | 30 | MMC7.3 223K50K31 TR12 | CHIP LENGTH 7.3 MM CODE 2824 | | | | | |
| 0.027 | K31 | 6.0 | 2.5 | 30 | MMC7.3 273K50K31 TR12 | 0.0010 | K31 | 6.0 | 2.5 | 50 | MMC7.3 102K63K31 TR12 |
| 0.033 | K31 | 6.0 | 2.5 | 30 | MMC7.3 333K50K31 TR12 | 0.0012 | K31 | 6.0 | 2.5 | 50 | MMC7.3 122K63K31 TR12 |
| 0.039 | K31 | 6.0 | 2.5 | 30 | MMC7.3 393K50K31 TR12 | 0.0015 | K31 | 6.0 | 2.5 | 50 | MMC7.3 152K63K31 TR12 |
| 0.047 | K31 | 6.0 | 2.5 | 30 | MMC7.3 473K50K31 TR12 | 0.0018 | K31 | 6.0 | 2.5 | 50 | MMC7.3 182K63K31 TR12 |
| 0.056 | K31 | 6.0 | 2.5 | 30 | MMC7.3 563K50K31 TR12 | 0.0022 | K31 | 6.0 | 2.5 | 50 | MMC7.3 222K63K31 TR12 |
| 0.068 | K31 | 6.0 | 2.5 | 30 | MMC7.3 683K50K31 TR12 | 0.0027 | K31 | 6.0 | 2.5 | 50 | MMC7.3 272K63K31 TR12 |
| 0.082 | K31 | 6.0 | 2.5 | 30 | MMC7.3 823K50K31 TR12 | | | | | | |
| 0.10 | K31 | 6.0 | 2.5 | 30 | MMC7.3 104K50K31 TR12 | | | | | | |
| 0.12 | K31 | 6.0 | 2.5 | 30 | MMC7.3 124K50K31 TR12 | | | | | | |
| 0.15 | K31 | 6.0 | 2.5 | 25 | MMC7.3 154K50K31 TR12 | | | | | | |
| 0.18 | K33 | 6.0 | 3.0 | 25 | MMC7.3 184K50K33 TR12 | | | | | | |
| 0.22 | K33 | 6.0 | 3.0 | 25 | MMC7.3 224K50K33 TR12 | | | | | | |
| 0.27 | K35 | 6.0 | 3.5 | 25 | MMC7.3 274K50K35 TR12 | | | | | | |

ARTICLE TABLE

| Capacitance µF | Size code | Dimensions in mm ±0.2 | | Max dU/dt V/µs | Article code |
|-------------------|--------------|--------------------------|---|----------------------|--------------|
| | | B | H | | |

63 VDC/40 VAC

CHIP LENGTH 7.3 MM CODE 2824

| | | | | | |
|--------|-----|-----|-----|----|-----------------------|
| 0.0033 | K31 | 6.0 | 2.5 | 50 | MMC7.3 332K63K31 TR12 |
| 0.0039 | K31 | 6.0 | 2.5 | 50 | MMC7.3 392K63K31 TR12 |
| 0.0047 | K31 | 6.0 | 2.5 | 50 | MMC7.3 472K63K31 TR12 |
| 0.0056 | K31 | 6.0 | 2.5 | 50 | MMC7.3 562K63K31 TR12 |
| 0.0068 | K31 | 6.0 | 2.5 | 40 | MMC7.3 682K63K31 TR12 |
| 0.0082 | K31 | 6.0 | 2.5 | 40 | MMC7.3 822K63K31 TR12 |
| 0.010 | K31 | 6.0 | 2.5 | 40 | MMC7.3 103K63K31 TR12 |
| 0.012 | K31 | 6.0 | 2.5 | 40 | MMC7.3 123K63K31 TR12 |
| 0.015 | K31 | 6.0 | 2.5 | 40 | MMC7.3 153K63K31 TR12 |
| 0.018 | K31 | 6.0 | 2.5 | 40 | MMC7.3 183K63K31 TR12 |
| 0.022 | K31 | 6.0 | 2.5 | 30 | MMC7.3 223K63K31 TR12 |
| 0.027 | K31 | 6.0 | 2.5 | 30 | MMC7.3 273K63K31 TR12 |
| 0.033 | K31 | 6.0 | 2.5 | 30 | MMC7.3 333K63K31 TR12 |
| 0.039 | K31 | 6.0 | 2.5 | 30 | MMC7.3 393K63K31 TR12 |
| 0.047 | K31 | 6.0 | 2.5 | 30 | MMC7.3 473K63K31 TR12 |
| 0.056 | K31 | 6.0 | 2.5 | 30 | MMC7.3 563K63K31 TR12 |
| 0.068 | K31 | 6.0 | 2.5 | 30 | MMC7.3 683K63K31 TR12 |
| 0.082 | K31 | 6.0 | 2.5 | 30 | MMC7.3 823K63K31 TR12 |
| 0.10 | K31 | 6.0 | 2.5 | 30 | MMC7.3 104K63K31 TR12 |
| 0.12 | K31 | 6.0 | 2.5 | 30 | MMC7.3 124K63K31 TR12 |
| 0.15 | K31 | 6.0 | 2.5 | 30 | MMC7.3 154K63K31 TR12 |
| 0.18 | K33 | 6.0 | 3.0 | 25 | MMC7.3 184K63K33 TR12 |
| 0.22 | K33 | 6.0 | 3.0 | 25 | MMC7.3 224K63K33 TR12 |
| 0.27 | K35 | 6.0 | 3.5 | 25 | MMC7.3 274K63K35 TR12 |
| 0.33 | K35 | 6.0 | 3.5 | 25 | MMC7.3 334K63K35 TR12 |
| 0.39 | K35 | 6.0 | 3.5 | 25 | MMC7.3 394K63K35 TR12 |
| 0.47 | K35 | 6.0 | 3.5 | 25 | MMC7.3 474K63K35 TR12 |

CHIP LENGTH 10.2 MM CODE 4036

| | | | | | |
|-------|-----|-----|-----|----|------------------------|
| 0.022 | A31 | 9.1 | 5.5 | 40 | MMC10.2 223K63A31 TR16 |
| 0.027 | A31 | 9.1 | 5.5 | 40 | MMC10.2 273K63A31 TR16 |
| 0.033 | A31 | 9.1 | 5.5 | 40 | MMC10.2 333K63A31 TR16 |
| 0.039 | A31 | 9.1 | 5.5 | 40 | MMC10.2 393K63A31 TR16 |
| 0.047 | A31 | 9.1 | 5.5 | 40 | MMC10.2 473K63A31 TR16 |
| 0.056 | A31 | 9.1 | 5.5 | 40 | MMC10.2 563K63A31 TR16 |
| 0.068 | A31 | 9.1 | 5.5 | 40 | MMC10.2 683K63A31 TR16 |
| 0.082 | A31 | 9.1 | 5.5 | 40 | MMC10.2 823K63A31 TR16 |
| 0.10 | A31 | 9.1 | 5.5 | 30 | MMC10.2 104K63A31 TR16 |
| 0.12 | A31 | 9.1 | 5.5 | 30 | MMC10.2 124K63A31 TR16 |
| 0.15 | A31 | 9.1 | 5.5 | 30 | MMC10.2 154K63A31 TR16 |
| 0.18 | A31 | 9.1 | 5.5 | 20 | MMC10.2 184K63A31 TR16 |
| 0.22 | A31 | 9.1 | 5.5 | 20 | MMC10.2 224K63A31 TR16 |
| 0.27 | A31 | 9.1 | 5.5 | 20 | MMC10.2 274K63A31 TR16 |
| 0.33 | A31 | 9.1 | 5.5 | 20 | MMC10.2 334K63A31 TR16 |
| 0.39 | A31 | 9.1 | 5.5 | 20 | MMC10.2 394K63A31 TR16 |
| 0.47 | A31 | 9.1 | 5.5 | 20 | MMC10.2 474K63A31 TR16 |
| 0.56 | A31 | 9.1 | 5.5 | 12 | MMC10.2 564K63A31 TR16 |
| 0.68 | A31 | 9.1 | 5.5 | 12 | MMC10.2 684K63A31 TR16 |
| 0.82 | A31 | 9.1 | 5.5 | 12 | MMC10.2 824K63A31 TR16 |
| 1.0 | A31 | 9.1 | 5.5 | 12 | MMC10.2 105K63A31 TR16 |
| 1.2 | A31 | 9.1 | 5.5 | 12 | MMC10.2 125K63A31 TR16 |
| 1.5 | A31 | 9.1 | 5.5 | 12 | MMC10.2 155K63A31 TR16 |

CHIP LENGTH 12.7 MM CODE 5045

| | | | | | |
|-----|-----|------|-----|---|------------------------|
| 1.8 | B31 | 11.5 | 6.5 | 8 | MMC12.7 185K63B31 TR24 |
| 2.2 | B31 | 11.5 | 6.5 | 8 | MMC12.7 225K63B31 TR24 |
| 2.7 | B31 | 11.5 | 6.5 | 8 | MMC12.7 275K63B31 TR24 |
| 3.3 | B31 | 11.5 | 6.5 | 8 | MMC12.7 335K63B31 TR24 |

| Capacitance µF | Size code | Dimensions in mm ±0.2 | | Max dU/dt V/µs | Article code |
|-------------------|--------------|--------------------------|---|----------------------|--------------|
| | | B | H | | |

63 VDC/40 VAC

CHIP LENGTH 16.5 MM CODE 6560

| | | | | | |
|-----|-----|------|-----|---|------------------------|
| 3.9 | C31 | 15.0 | 7.0 | 5 | MMC16.5 395K63C31 TR24 |
| 4.7 | C31 | 15.0 | 7.0 | 5 | MMC16.5 475K63C31 TR24 |

100 VDC/63 VAC

CHIP LENGTH 5.7 MM CODE 2220

| | | | | | |
|--------|-----|-----|-----|----|------------------------|
| 0.0010 | J31 | 5.0 | 2.5 | 40 | MMC5.7 102K100J31 TR12 |
| 0.0012 | J31 | 5.0 | 2.5 | 40 | MMC5.7 122K100J31 TR12 |
| 0.0015 | J31 | 5.0 | 2.5 | 40 | MMC5.7 152K100J31 TR12 |
| 0.0018 | J31 | 5.0 | 2.5 | 40 | MMC5.7 182K100J31 TR12 |
| 0.0022 | J31 | 5.0 | 2.5 | 40 | MMC5.7 222K100J31 TR12 |
| 0.0027 | J31 | 5.0 | 2.5 | 40 | MMC5.7 272K100J31 TR12 |
| 0.0033 | J31 | 5.0 | 2.5 | 40 | MMC5.7 332K100J31 TR12 |
| 0.0039 | J31 | 5.0 | 2.5 | 40 | MMC5.7 392K100J31 TR12 |
| 0.0047 | J31 | 5.0 | 2.5 | 40 | MMC5.7 472K100J31 TR12 |
| 0.0056 | J31 | 5.0 | 2.5 | 40 | MMC5.7 562K100J31 TR12 |
| 0.0068 | J31 | 5.0 | 2.5 | 40 | MMC5.7 682K100J31 TR12 |
| 0.0082 | J31 | 5.0 | 2.5 | 40 | MMC5.7 822K100J31 TR12 |
| 0.010 | J31 | 5.0 | 2.5 | 40 | MMC5.7 103K100J31 TR12 |
| 0.012 | J31 | 5.0 | 2.5 | 40 | MMC5.7 123K100J31 TR12 |
| 0.015 | J31 | 5.0 | 2.5 | 30 | MMC5.7 153K100J31 TR12 |
| 0.018 | J31 | 5.0 | 2.5 | 30 | MMC5.7 183K100J31 TR12 |
| 0.022 | J31 | 5.0 | 2.5 | 30 | MMC5.7 223K100J31 TR12 |
| 0.027 | J31 | 5.0 | 2.5 | 30 | MMC5.7 273K100J31 TR12 |
| 0.033 | J31 | 5.0 | 2.5 | 30 | MMC5.7 333K100J31 TR12 |
| 0.039 | J31 | 5.0 | 2.5 | 30 | MMC5.7 393K100J31 TR12 |
| 0.047 | J31 | 5.0 | 2.5 | 30 | MMC5.7 473K100J31 TR12 |
| 0.056 | J33 | 5.0 | 3.0 | 30 | MMC5.7 563K100J33 TR12 |
| 0.068 | J33 | 5.0 | 3.0 | 30 | MMC5.7 683K100J33 TR12 |
| 0.082 | J35 | 5.0 | 4.0 | 30 | MMC5.7 823K100J35 TR12 |
| 0.10 | J35 | 5.0 | 4.0 | 30 | MMC5.7 104K100J35 TR12 |

CHIP LENGTH 7.3 MM CODE 2824

| | | | | | |
|--------|-----|-----|-----|----|------------------------|
| 0.0010 | K31 | 6.0 | 2.5 | 50 | MMC7.3 102K100K31 TR12 |
| 0.0012 | K31 | 6.0 | 2.5 | 50 | MMC7.3 122K100K31 TR12 |
| 0.0015 | K31 | 6.0 | 2.5 | 50 | MMC7.3 152K100K31 TR12 |
| 0.0018 | K31 | 6.0 | 2.5 | 50 | MMC7.3 182K100K31 TR12 |
| 0.0022 | K31 | 6.0 | 2.5 | 50 | MMC7.3 222K100K31 TR12 |
| 0.0027 | K31 | 6.0 | 2.5 | 50 | MMC7.3 272K100K31 TR12 |
| 0.0033 | K31 | 6.0 | 2.5 | 50 | MMC7.3 332K100K31 TR12 |
| 0.0039 | K31 | 6.0 | 2.5 | 50 | MMC7.3 392K100K31 TR12 |
| 0.0047 | K31 | 6.0 | 2.5 | 50 | MMC7.3 472K100K31 TR12 |
| 0.0056 | K31 | 6.0 | 2.5 | 50 | MMC7.3 562K100K31 TR12 |
| 0.0068 | K31 | 6.0 | 2.5 | 40 | MMC7.3 682K100K31 TR12 |
| 0.0082 | K31 | 6.0 | 2.5 | 40 | MMC7.3 822K100K31 TR12 |
| 0.010 | K31 | 6.0 | 2.5 | 40 | MMC7.3 103K100K31 TR12 |
| 0.012 | K31 | 6.0 | 2.5 | 40 | MMC7.3 123K100K31 TR12 |
| 0.015 | K31 | 6.0 | 2.5 | 40 | MMC7.3 153K100K31 TR12 |
| 0.018 | K31 | 6.0 | 2.5 | 40 | MMC7.3 183K100K31 TR12 |
| 0.022 | K31 | 6.0 | 2.5 | 30 | MMC7.3 223K100K31 TR12 |
| 0.027 | K31 | 6.0 | 2.5 | 30 | MMC7.3 273K100K31 TR12 |
| 0.033 | K31 | 6.0 | 2.5 | 30 | MMC7.3 333K100K31 TR12 |
| 0.039 | K31 | 6.0 | 2.5 | 30 | MMC7.3 393K100K31 TR12 |
| 0.047 | K31 | 6.0 | 2.5 | 30 | MMC7.3 473K100K31 TR12 |
| 0.056 | K31 | 6.0 | 2.5 | 30 | MMC7.3 563K100K31 TR12 |
| 0.068 | K31 | 6.0 | 2.5 | 30 | MMC7.3 683K100K31 TR12 |
| 0.082 | K31 | 6.0 | 2.5 | 30 | MMC7.3 823K100K31 TR12 |
| 0.10 | K31 | 6.0 | 2.5 | 30 | MMC7.3 104K100K31 TR12 |
| 0.12 | K33 | 6.0 | 3.0 | 30 | MMC7.3 124K100K33 TR12 |
| 0.15 | K35 | 6.0 | 3.5 | 30 | MMC7.3 154K100K35 TR12 |

ARTICLE TABLE

| Capacitance μF | Size code | Dimensions in mm ± 0.2 | | Max dU/dt V/ μs | Article code | Capacitance μF | Size code | Dimensions in mm ± 0.2 | | Max dU/dt V/ μs | Article code |
|--------------------------------------|--------------|-------------------------------|-----|----------------------------------|-------------------------|--------------------------------------|--------------|-------------------------------|-----|----------------------------------|-------------------------|
| | | B | H | | | | | B | H | | |
| 100 VDC/63 VAC | | | | | | 250 VDC/160 VAC | | | | | |
| CHIP LENGTH 7.3 MM CODE 2824 | | | | | | CHIP LENGTH 7.3 MM CODE 2824 | | | | | |
| 0.18 | K35 | 6.0 | 3.5 | 30 | MMC7.3 184K100K35 TR12 | 0.0010 | K31 | 6.0 | 2.5 | 50 | MMC7.3 102K250K31 TR12 |
| 0.22 | K35 | 6.0 | 4.5 | 30 | MMC7.3 224K100K37 TR12 | 0.0012 | K31 | 6.0 | 2.5 | 50 | MMC7.3 122K250K31 TR12 |
| CHIP LENGTH 10.2 MM CODE 4036 | | | | | | CHIP LENGTH 7.3 MM CODE 2824 | | | | | |
| 0.022 | A31 | 9.1 | 5.5 | 40 | MMC10.2 223K100A31 TR16 | 0.0015 | K31 | 6.0 | 2.5 | 50 | MMC7.3 152K250K31 TR12 |
| 0.027 | A31 | 9.1 | 5.5 | 40 | MMC10.2 273K100A31 TR16 | 0.0018 | K31 | 6.0 | 2.5 | 50 | MMC7.3 182K250K31 TR12 |
| 0.033 | A31 | 9.1 | 5.5 | 40 | MMC10.2 333K100A31 TR16 | 0.0022 | K31 | 6.0 | 2.5 | 50 | MMC7.3 222K250K31 TR12 |
| 0.039 | A31 | 9.1 | 5.5 | 40 | MMC10.2 393K100A31 TR16 | 0.0027 | K31 | 6.0 | 2.5 | 50 | MMC7.3 272K250K31 TR12 |
| 0.047 | A31 | 9.1 | 5.5 | 40 | MMC10.2 473K100A31 TR16 | 0.0033 | K31 | 6.0 | 2.5 | 50 | MMC7.3 332K250K31 TR12 |
| 0.056 | A31 | 9.1 | 5.5 | 40 | MMC10.2 563K100A31 TR16 | 0.0039 | K31 | 6.0 | 2.5 | 50 | MMC7.3 392K250K31 TR12 |
| 0.068 | A31 | 9.1 | 5.5 | 40 | MMC10.2 683K100A31 TR16 | 0.0047 | K31 | 6.0 | 2.5 | 50 | MMC7.3 472K250K31 TR12 |
| 0.082 | A31 | 9.1 | 5.5 | 40 | MMC10.2 823K100A31 TR16 | 0.0056 | K31 | 6.0 | 2.5 | 50 | MMC7.3 562K250K31 TR12 |
| 0.10 | A31 | 9.1 | 5.5 | 30 | MMC10.2 104K100A31 TR16 | 0.0068 | K31 | 6.0 | 2.5 | 40 | MMC7.3 682K250K31 TR12 |
| 0.12 | A31 | 9.1 | 5.5 | 30 | MMC10.2 124K100A31 TR16 | 0.0082 | K31 | 6.0 | 2.5 | 40 | MMC7.3 822K250K31 TR12 |
| 0.15 | A31 | 9.1 | 5.5 | 30 | MMC10.2 154K100A31 TR16 | 0.010 | K31 | 6.0 | 2.5 | 40 | MMC7.3 103K250K31 TR12 |
| 0.18 | A31 | 9.1 | 5.5 | 20 | MMC10.2 184K100A31 TR16 | 0.012 | K31 | 6.0 | 2.5 | 40 | MMC7.3 123K250K31 TR12 |
| 0.22 | A31 | 9.1 | 5.5 | 20 | MMC10.2 224K100A31 TR16 | 0.015 | K31 | 6.0 | 2.5 | 40 | MMC7.3 153K250K31 TR12 |
| 0.27 | A31 | 9.1 | 5.5 | 20 | MMC10.2 274K100A31 TR16 | 0.018 | K33 | 6.0 | 3.0 | 40 | MMC7.3 183K250K33 TR12 |
| 0.33 | A31 | 9.1 | 5.5 | 20 | MMC10.2 334K100A31 TR16 | 0.022 | K33 | 6.0 | 3.0 | 40 | MMC7.3 223K250K33 TR12 |
| 0.39 | A31 | 9.1 | 5.5 | 20 | MMC10.2 394K100A31 TR16 | 0.027 | K35 | 6.0 | 3.5 | 40 | MMC7.3 273K250K35 TR12 |
| 0.47 | A31 | 9.1 | 5.5 | 20 | MMC10.2 474K100A31 TR16 | 0.033 | K35 | 6.0 | 3.5 | 40 | MMC7.3 333K250K35 TR12 |
| CHIP LENGTH 12.7 MM CODE 5045 | | | | | | CHIP LENGTH 10.2 MM CODE 4036 | | | | | |
| 0.56 | B31 | 11.5 | 6.5 | 12 | MMC12.7 564K100B31 TR24 | 0.022 | A31 | 9.1 | 5.5 | 40 | MMC10.2 223K250A31 TR16 |
| 0.68 | B31 | 11.5 | 6.5 | 12 | MMC12.7 684K100B31 TR24 | 0.027 | A31 | 9.1 | 5.5 | 40 | MMC10.2 273K250A31 TR16 |
| 0.82 | B31 | 11.5 | 6.5 | 12 | MMC12.7 824K100B31 TR24 | 0.033 | A31 | 9.1 | 5.5 | 40 | MMC10.2 333K250A31 TR16 |
| 1.0 | B31 | 11.5 | 6.5 | 12 | MMC12.7 105K100B31 TR24 | 0.039 | A31 | 9.1 | 5.5 | 40 | MMC10.2 393K250A31 TR16 |
| CHIP LENGTH 16.5 MM CODE 6560 | | | | | | CHIP LENGTH 10.2 MM CODE 4036 | | | | | |
| 1.2 | C31 | 15.0 | 7.0 | 8 | MMC16.5 125K100C31 TR24 | 0.047 | A31 | 9.1 | 5.5 | 40 | MMC10.2 473K250A31 TR16 |
| 1.5 | C31 | 15.0 | 7.0 | 8 | MMC16.5 155K100C31 TR24 | 0.056 | A31 | 9.1 | 5.5 | 40 | MMC10.2 563K250A31 TR16 |
| 1.8 | C31 | 15.0 | 7.0 | 8 | MMC16.5 185K100C31 TR24 | 0.068 | A31 | 9.1 | 5.5 | 40 | MMC10.2 683K250A31 TR16 |
| 2.2 | C31 | 15.0 | 7.0 | 8 | MMC16.5 225K100C31 TR24 | 0.082 | A31 | 9.1 | 5.5 | 40 | MMC10.2 823K250A31 TR16 |
| 2.7 | C31 | 15.0 | 7.0 | 8 | MMC16.5 275K100C31 TR24 | 0.10 | A31 | 9.1 | 5.5 | 30 | MMC10.2 104K250A31 TR16 |
| 3.3 | C31 | 15.0 | 7.0 | 8 | MMC16.5 335K100C31 TR24 | 0.12 | A31 | 9.1 | 5.5 | 30 | MMC10.2 124K250A31 TR16 |
| 250 VDC/160 VAC | | | | | | CHIP LENGTH 12.7 MM CODE 5045 | | | | | |
| CHIP LENGTH 5.7 MM CODE 2220 | | | | | | 0.18 | B31 | 11.5 | 6.5 | 20 | MMC12.7 184K250B31 TR24 |
| 0.0010 | J31 | 5.0 | 2.5 | 40 | MMC5.7 102K250J31 TR12 | 0.22 | B31 | 11.5 | 6.5 | 20 | MMC12.7 224K250B31 TR24 |
| 0.0012 | J31 | 5.0 | 2.5 | 40 | MMC5.7 122K250J31 TR12 | 0.27 | B31 | 11.5 | 6.5 | 20 | MMC12.7 274K250B31 TR24 |
| 0.0015 | J31 | 5.0 | 2.5 | 40 | MMC5.7 152K250J31 TR12 | 0.33 | B31 | 11.5 | 6.5 | 20 | MMC12.7 334K250B31 TR24 |
| 0.0018 | J31 | 5.0 | 2.5 | 40 | MMC5.7 182K250J31 TR12 | 0.39 | B31 | 11.5 | 6.5 | 20 | MMC12.7 394K250B31 TR24 |
| 0.0022 | J31 | 5.0 | 2.5 | 40 | MMC5.7 222K250J31 TR12 | 0.47 | B31 | 11.5 | 6.5 | 20 | MMC12.7 474K250B31 TR24 |
| 0.0027 | J31 | 5.0 | 2.5 | 40 | MMC5.7 272K250J31 TR12 | CHIP LENGTH 16.5 MM CODE 6560 | | | | | |
| 0.0033 | J31 | 5.0 | 2.5 | 40 | MMC5.7 332K250J31 TR12 | 0.56 | C31 | 15.0 | 7.0 | 12 | MMC16.5 564K250C31 TR24 |
| 0.0039 | J31 | 5.0 | 2.5 | 40 | MMC5.7 392K250J31 TR12 | 0.68 | C31 | 15.0 | 7.0 | 12 | MMC16.5 684K250C31 TR24 |
| 0.0047 | J31 | 5.0 | 2.5 | 40 | MMC5.7 472K250J31 TR12 | 0.82 | C31 | 15.0 | 7.0 | 12 | MMC16.5 824K250C31 TR24 |
| 0.0056 | J31 | 5.0 | 2.5 | 40 | MMC5.7 562K250J31 TR12 | 1.0 | C31 | 15.0 | 7.0 | 12 | MMC16.5 105K250C31 TR24 |
| 0.0068 | J31 | 5.0 | 2.5 | 40 | MMC5.7 682K250J31 TR12 | 400 VDC/200 VAC | | | | | |
| 0.0082 | J31 | 5.0 | 2.5 | 40 | MMC5.7 822K250J31 TR12 | CHIP LENGTH 7.3 MM CODE 2824 | | | | | |
| 0.010 | J31 | 5.0 | 2.5 | 40 | MMC5.7 103K250J31 TR12 | 0.0010 | K31 | 6.0 | 2.5 | 50 | MMC7.3 102K400K31 TR12 |
| 0.012 | J31 | 5.0 | 2.5 | 40 | MMC5.7 123K250J31 TR12 | 0.0012 | K31 | 6.0 | 2.5 | 50 | MMC7.3 122K400K31 TR12 |
| 0.015 | J33 | 5.0 | 3.0 | 40 | MMC5.7 153K250J33 TR12 | 0.0015 | K31 | 6.0 | 2.5 | 50 | MMC7.3 152K400K31 TR12 |
| 0.018 | J35 | 5.0 | 4.0 | 40 | MMC5.7 183K250J35 TR12 | 0.0018 | K31 | 6.0 | 2.5 | 50 | MMC7.3 182K400K31 TR12 |
| 0.022 | J35 | 5.0 | 4.0 | 40 | MMC5.7 223K250J35 TR12 | | | | | | |

NOTE: These products are not yet suitable for lead free soldering. For actual status, please contact manufacturer.

ARTICLE TABLE

| Capacitance μF | Size code | Dimensions in mm ± 0.2 | | Max dU/dt V/ μs | Article code | Capacitance μF | Size code | Dimensions in mm ± 0.2 | | Max dU/dt V/ μs | Article code |
|--------------------------------------|-----------|----------------------------|-----|-------------------------------|-------------------------|--------------------------------------|-----------|----------------------------|-----|-------------------------------|-------------------------|
| | | B | H | | | | | B | H | | |
| 400 VDC/200 VAC | | | | | | 400 VDC/200 VAC | | | | | |
| CHIP LENGTH 7.3 MM CODE 2824 | | | | | | CHIP LENGTH 12.7 MM CODE 5045 | | | | | |
| 0.0022 | K31 | 6.0 | 2.5 | 50 | MMC7.3 222K400K31 TR12 | 0.082 | B31 | 11.5 | 6.5 | 30 | MMC12.7 823K400B31 TR24 |
| 0.0027 | K31 | 6.0 | 2.5 | 50 | MMC7.3 272K400K31 TR12 | 0.10 | B31 | 11.5 | 6.5 | 30 | MMC12.7 104K400B31 TR24 |
| 0.0033 | K31 | 6.0 | 2.5 | 50 | MMC7.3 332K400K31 TR12 | 0.12 | B31 | 11.5 | 6.5 | 30 | MMC12.7 124K400B31 TR24 |
| 0.0039 | K31 | 6.0 | 2.5 | 50 | MMC7.3 392K400K31 TR12 | 0.15 | B31 | 11.5 | 6.5 | 30 | MMC12.7 154K400B31 TR24 |
| 0.0047 | K31 | 6.0 | 2.5 | 50 | MMC7.3 472K400K31 TR12 | CHIP LENGTH 16.5 MM CODE 6560 | | | | | |
| 0.0056 | K33 | 6.0 | 3.0 | 50 | MMC7.3 562K400K33 TR12 | 0.18 | C31 | 15.0 | 7.0 | 20 | MMC16.5 184K400C31 TR24 |
| 0.0068 | K33 | 6.0 | 3.0 | 50 | MMC7.3 682K400K33 TR12 | 0.22 | C31 | 15.0 | 7.0 | 20 | MMC16.5 224K400C31 TR24 |
| 0.0082 | K33 | 6.0 | 3.0 | 50 | MMC7.3 822K400K33 TR12 | 0.27 | C31 | 15.0 | 7.0 | 20 | MMC16.5 274K400C31 TR24 |
| 0.010 | K35 | 6.0 | 3.5 | 50 | MMC7.3 103K400K35 TR12 | 0.33 | C31 | 15.0 | 7.0 | 20 | MMC16.5 334K400C31 TR24 |
| 0.012 | K35 | 6.0 | 3.5 | 50 | MMC7.3 123K400K35 TR12 | 0.39 | C31 | 15.0 | 7.0 | 20 | MMC16.5 394K400C31 TR24 |
| 0.015 | K37 | 6.0 | 4.5 | 50 | MMC7.3 153K400K37 TR12 | 0.47 | C31 | 15.0 | 7.0 | 20 | MMC16.5 474K400C31 TR24 |
| CHIP LENGTH 10.2 MM CODE 4036 | | | | | | | | | | | |
| 0.022 | A31 | 9.1 | 5.5 | 40 | MMC10.2 223K400A31 TR16 | | | | | | |
| 0.027 | A31 | 9.1 | 5.5 | 40 | MMC10.2 273K400A31 TR16 | | | | | | |
| 0.033 | A31 | 9.1 | 5.5 | 40 | MMC10.2 333K400A31 TR16 | | | | | | |
| 0.039 | A31 | 9.1 | 5.5 | 40 | MMC10.2 393K400A31 TR16 | | | | | | |
| 0.047 | A31 | 9.1 | 5.5 | 40 | MMC10.2 473K400A31 TR16 | | | | | | |
| 0.056 | A31 | 9.1 | 5.5 | 40 | MMC10.2 563K400A31 TR16 | | | | | | |
| 0.068 | A31 | 9.1 | 5.5 | 40 | MMC10.2 683K400A31 TR16 | | | | | | |