

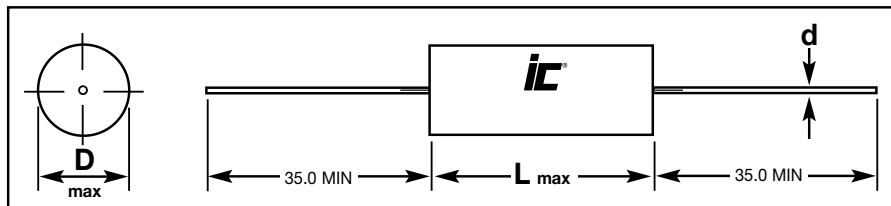
MTR

Axial Leaded Metallized Polyester Film Capacitors Reduced Size



- *Small Size*
- *General Purpose*
- *Low AC Voltage*
- *High Reliability*

| | | | | | | | |
|--|-------------|---|----------------|-----------------------|-----------------------------------|------------------------------|-------------|
| Operating Temperature Range | | -55°C to +105°C | | | | | |
| Capacitance Tolerance | | ±10% at 1 kHz, 20°C ±5% optional | | | | | |
| AC voltage | WVDC | 63 | 100 | 250 | 400 | 630 | 1000 |
| | VAC | 40 | 63 | 160 | 200 | 220 | 400 |
| Dissipation Factor (%) at 20°C. | | Freq (kHz) | C≤0.1µF | 0.1µF<C≤1µF | 1µF<C≤68µF | C>68µF | |
| | | 1kHz | .08 | .08 | .1 | .11 | |
| | | 10kHz | .15 | .15 | - | - | |
| | | 100kHz | .3 | - | - | - | |
| Insulation Resistance @20°C (<70% RH) for 1 minute at 100VDC applied | | WVDC | | Capacitance | | Insulation Resistance | |
| | | ≤100 | | ≤0.33µF | | >3750MΩ | |
| | | >100 | | ≤0.33µF | | ≥30000MΩxµF | |
| | | ≤100 | | >0.33µF | | >1250MΩ | |
| >100 | | >0.33µF | | >10000MΩxµF | | | |
| Self inductance | | <1 nano-Henry per mm of body length and lead length | | | | | |
| Dielectric Strength | | Terminal to terminal | | | | | |
| | | 160% of VDC applied for 2 Seconds and 25°C | | | | | |
| Reliability (1 Fit= 1x10⁹ failures/component hours) | | ≤5 Fit with 0.5xrated voltage at 40°C | | | | | |
| | | Capacitance Change | | | <10% of initially measured value | | |
| | | Dissipation Factor | | | <200% of maximum specified value | | |
| | | Insulation Resistance | | | < .005 of minimum specified value | | |
| Construction | | Metallized Polyester Film | | | | | |
| Coating | | Flame Retardant Polyester Tape Wrap (UL510) with Epoxy End Fill (UL-94V0) | | | | | |
| Lead Terminations | | Lead Free Tinned Copper Leads | | | | | |



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PHYSICAL DIMENSIONS

| WVDC (VAC) μF | 63 (40) | 100 (63) | 250 (160) | 400 (200) | 630 (220) | 1000 (400) |
|------------------|-----------|--------------------|----------------------|----------------------|--------------------|--------------------|
| 0.001 | | | | | | 5.5x11.5 |
| 0.0015 | | | | | | 5.5x11.5 |
| 0.0022 | | | | | | 5.5x11.5 |
| 0.0033 | | | | | 5.5x11.5 | 5.5x11.5 |
| 0.0047 | | | | | 5.5x11.5 | 6.5x11.5 |
| 0.0068 | | | | | 6x11.5 | 7.5x11.5 |
| 0.01 | | | | | 6x11.5 | 6.5x14.5 |
| 0.015 | | | | | 7x11.5 | 7.5x14.5 |
| 0.022 | | | | 5.5x11.5 | 6.5x14.5 | 8x14.5 |
| 0.033 | | | | 6x11.5 | 7x14.5 | 8x20.5 9.5x14.5 |
| 0.047 | | | | 6.5x11.5 | 8x14.5 | 9x20.5 |
| 0.068 | | | 5.5x11.5 | 7.5x11.5 | 8x20.5 9.5x14.5 | 10x20.5 |
| 0.1 | | | 6.5x11.5 | 7x14.5 | 9x20.5 | 12.5x20.5 |
| 0.15 | | | 7.5x11.5 | 8x14.5 | 10.5x20.5 | 12x29 |
| 0.22 | | 5.5x11.5 | 7x14.5 | 8x20.5 9.5x14.5 | 12.5x20.5 | 14x29 |
| 0.33 | 5.5x11.5 | 6.5x11.5 | 8x14.5 | 9.5x20.5 | 12.5x29 | 15x34 17x29 |
| 0.47 | 6x11.5 | 7x11.5 | 8x20.5 9.5x14.5 | 11x20.5 | 14x29 | 17x34 |
| 0.68 | 6x14.5 | 7x14.5 | 9x20.5 | 13x20.5 | 15x34 16.5x29 | 24x34 |
| 1 | 7x14.5 | 8x14.5 | 10.5x20.5 | 12.5x29 14.5x20.5 | 17.5x34 | 24x34 |
| 1.5 | 8x14.5 | 8x20.5 9.5x14.5 | 12.5x20.5 | 14.5x29 | 21x34 | 24.5x46.5 |
| 2.2 | 8x20.5 | 9.5x20.5 | 12.5x29 14.5x20.5 | 15.5x34 17x29 | 21.5x46.5 | 29x46.5 25x34 |
| 3.3 | 9.5x20.5 | 11x20.5 | 14.5x29 | 18x34 | 25.5x46.5 | 35x46.5 |
| 4.7 | 11x20.5 | 13x20.5 | 15x34 17x29 | 21.5x34 | 30x46.5 | |
| 6.8 | 12.5x20.5 | 13x29 | 17.5x34 | 22x46.5 25.5x34 | 35x46.5 | |
| 10 | 12.5x29 | 14x34 15.5x29 | 21x34 | 26x46.5 | | |
| 22 | 17.5x29 | 19.5x34 | 25.5x46.5 | 37x46.5 | | |
| 33 | 19.5x34 | 23x34 | 30.5x46.5 | | | |
| 47 | 22.5x34 | 23.5x46.5 27x34 | 36x46.5 | | | |
| 68 | 23x46.5 | 28x46.5 | | | | |
| 100 | 27.5x46.5 | 33x46.5 | | | | |
| 120 | | 36x46.5 | | | | |
| 150 | 33x46.5 | | | | | |

Convert to inches, divide by 25.4

DxL(mm)



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Reduced Size

STANDARD PARTS LIST

| Capacitance (µF) | WVDC | IC PART NUMBER | dv/dt (v/µs) | Dimensions DxL (mm) | Lead wire dia. (mm) |
|------------------|------|----------------|--------------|---------------------|---------------------|
| 0.001 | 1000 | 102MTR102KA | 120 | 5.5x11.5 | 0.6 |
| 0.0015 | 1000 | 152MTR102KA | 120 | 5.5x11.5 | 0.6 |
| 0.0022 | 1000 | 222MTR102KA | 120 | 5.5x11.5 | 0.6 |
| 0.0033 | 630 | 332MTR630KA | 60 | 5.5x11.5 | 0.6 |
| 0.0033 | 1000 | 332MTR102KA | 120 | 5.5x11.5 | 0.6 |
| 0.0047 | 630 | 472MTR630KA | 60 | 5.5x11.5 | 0.6 |
| 0.0047 | 1000 | 472MTR102KA | 120 | 6.5x11.5 | 0.6 |
| 0.0068 | 630 | 682MTR630KA | 60 | 6x11.5 | 0.6 |
| 0.0068 | 1000 | 682MTR102KA | 120 | 7.5x11.5 | 0.6 |
| 0.01 | 630 | 103MTR630KA | 60 | 6x11.5 | 0.6 |
| 0.01 | 1000 | 103MTR102KB | 80 | 6.5x14.5 | 0.6 |
| 0.015 | 630 | 153MTR630KA | 60 | 7x11.5 | 0.6 |
| 0.015 | 1000 | 153MTR102KB | 80 | 7.5x14.5 | 0.6 |
| 0.022 | 400 | 223MTR400KA | 45 | 5.5x11.5 | 0.6 |
| 0.022 | 630 | 223MTR630KB | 40 | 6.5x14.5 | 0.6 |
| 0.022 | 1000 | 223MTR102KB | 80 | 8x14.5 | 0.6 |
| 0.033 | 400 | 333MTR400KA | 45 | 6x11.5 | 0.6 |
| 0.033 | 630 | 333MTR630KB | 40 | 7x14.5 | 0.6 |
| 0.033 | 1000 | 333MTR102KB | 80 | 9.5x14.5 | 0.8 |
| 0.033 | 1000 | 333MTR102KD | 40 | 8x20.5 | 0.6 |
| 0.047 | 400 | 473MTR400KA | 45 | 6.5x11.5 | 0.6 |
| 0.047 | 630 | 473MTR630KB | 40 | 8x14.5 | 0.6 |
| 0.047 | 1000 | 473MTR102KD | 40 | 9x20.5 | 0.8 |
| 0.068 | 250 | 683MTR250KA | 30 | 5.5x11.5 | 0.6 |
| 0.068 | 400 | 683MTR400KA | 45 | 7.5x11.5 | 0.6 |
| 0.068 | 630 | 683MTR630KB | 40 | 9.5x14.5 | 0.8 |
| 0.068 | 630 | 683MTR630KD | 25 | 8x20.5 | 0.6 |
| 0.068 | 1000 | 683MTR102KD | 40 | 10x20.5 | 0.8 |
| 0.1 | 250 | 104MTR250KA | 30 | 6.5x11.5 | 0.6 |
| 0.1 | 400 | 104MTR400KA | 30 | 7x14.5 | 0.6 |
| 0.1 | 630 | 104MTR630KD | 25 | 9x20.5 | 0.8 |
| 0.1 | 1000 | 104MTR102KD | 40 | 12.5x20.5 | 0.8 |
| 0.15 | 250 | 154MTR250KA | 30 | 7.5x11.5 | 0.6 |
| 0.15 | 400 | 154MTR400KB | 30 | 8x14.5 | 0.6 |
| 0.15 | 630 | 154MTR630KD | 25 | 10.5x20.5 | 0.8 |
| 0.15 | 1000 | 154MTR102KG | 33 | 12x29 | 0.8 |
| 0.22 | 100 | 224MTR100KA | 15 | 5.5x11.5 | 0.6 |
| 0.22 | 250 | 224MTR250KB | 20 | 7x14.5 | 0.6 |
| 0.22 | 400 | 224MTR400KB | 30 | 9.5x14.5 | 0.8 |
| 0.22 | 400 | 224MTR400KD | 20 | 8x20.5 | 0.6 |
| 0.22 | 630 | 224MTR630KD | 25 | 12.5x20.5 | 0.8 |
| 0.22 | 1000 | 224MTR102KG | 33 | 14x29 | 0.8 |
| 0.33 | 63 | 334MTR063KA | 10 | 5.5x11.5 | 0.6 |
| 0.33 | 100 | 334MTR100KA | 15 | 6.5x11.5 | 0.6 |
| 0.33 | 250 | 334MTR250KB | 20 | 8x14.5 | 0.6 |
| 0.33 | 400 | 334MTR400KD | 20 | 9.5x20.5 | 0.8 |

| Capacitance (µF) | WVDC | IC PART NUMBER | dv/dt (v/µs) | Dimensions DxL (mm) | Lead wire dia. (mm) |
|------------------|------|----------------|--------------|---------------------|---------------------|
| 0.33 | 630 | 334MTR630KG | 15 | 12.5x29 | 0.8 |
| 0.33 | 1000 | 334MTR102KG | 33 | 17x29 | 0.8 |
| 0.33 | 1000 | 334MTR102KJ | 20 | 15x34 | 0.8 |
| 0.47 | 63 | 474MTR063KA | 10 | 6x11.5 | 0.6 |
| 0.47 | 100 | 474MTR100KA | 15 | 7x11.5 | 0.6 |
| 0.47 | 250 | 474MTR250KB | 20 | 9.5x14.5 | 0.8 |
| 0.47 | 250 | 474MTR250KD | 12 | 8x20.5 | 0.6 |
| 0.47 | 400 | 474MTR400KD | 20 | 11x20.5 | 0.8 |
| 0.47 | 630 | 474MTR630KG | 15 | 14x29 | 0.8 |
| 0.47 | 1000 | 474MTR102KJ | 20 | 17x34 | 0.8 |
| 0.68 | 63 | 684MTR063KB | 6 | 6x14.5 | 0.6 |
| 0.68 | 100 | 684MTR100KB | 9 | 7x14.5 | 0.6 |
| 0.68 | 250 | 684MTR250KD | 12 | 9x20.5 | 0.8 |
| 0.68 | 400 | 684MTR400KD | 20 | 13x20.5 | 0.8 |
| 0.68 | 630 | 684MTR630KG | 15 | 16.5x29 | 0.8 |
| 0.68 | 630 | 684MTR630KJ | 10 | 15x34 | 0.8 |
| 0.68 | 1000 | 684MTR102KJ | 20 | 24x34 | 1 |
| 1 | 63 | 105MTR063KB | 6 | 7x14.5 | 0.6 |
| 1 | 100 | 105MTR100KB | 9 | 8x14.5 | 0.6 |
| 1 | 250 | 105MTR250KD | 12 | 10.5x20.5 | 0.8 |
| 1 | 400 | 105MTR400KD | 20 | 14.5x20.5 | 0.8 |
| 1 | 400 | 105MTR400KG | 13 | 12.5x29 | 0.8 |
| 1 | 630 | 105MTR630KJ | 10 | 17.5x34 | 0.8 |
| 1 | 1000 | 105MTR102KN | 20 | 24x34 | 1 |
| 1.5 | 63 | 155MTR063KB | 6 | 8x14.5 | 0.6 |
| 1.5 | 100 | 155MTR100KB | 9 | 9.5x14.5 | 0.8 |
| 1.5 | 100 | 155MTR100KD | 5 | 8x20.5 | 0.6 |
| 1.5 | 250 | 155MTR250KD | 12 | 12.5x20.5 | 0.8 |
| 1.5 | 400 | 155MTR400KG | 13 | 14.5x29 | 0.8 |
| 1.5 | 630 | 155MTR630KJ | 10 | 21x34 | 1 |
| 1.5 | 1000 | 155MTR102KN | 15 | 24.5x46.5 | 1 |
| 2.2 | 63 | 225MTR063KD | 3 | 8x20.5 | 0.6 |
| 2.2 | 100 | 225MTR100KD | 5 | 9.5x20.5 | 0.6 |
| 2.2 | 250 | 225MTR250KD | 12 | 14.5x20.5 | 0.8 |
| 2.2 | 250 | 225MTR250KG | 8 | 12.5x29 | 0.8 |
| 2.2 | 400 | 225MTR400KG | 13 | 17x29 | 0.8 |
| 2.2 | 400 | 225MTR400KJ | 8.5 | 15.5x34 | 0.8 |
| 2.2 | 630 | 225MTR630KJ | 10 | 25x34 | 1 |
| 2.2 | 630 | 225MTR630KN | 8 | 21.5x46.5 | 1 |
| 2.2 | 1000 | 225MTR102KN | 15 | 29x46.5 | 1 |
| 3.3 | 63 | 335MTR063KD | 3 | 9.5x20.5 | 0.8 |
| 3.3 | 100 | 335MTR100KD | 5 | 11x20.5 | 0.8 |
| 3.3 | 250 | 335MTR250KG | 8 | 14.5x29 | 0.8 |
| 3.3 | 400 | 335MTR400KJ | 8.5 | 18x34 | 0.8 |
| 3.3 | 630 | 335MTR630KN | 8 | 25.5x46.5 | 1 |
| 3.3 | 1000 | 335MTR102KN | 15 | 35x46.5 | 1 |



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STANDARD PARTS LIST

| Capacitance (μF) | WVDC | IC [®] PART NUMBER | dv/dt (v/μs) | Dimensions D×L (mm) | Lead wire dia. (mm) |
|------------------|------|-----------------------------|--------------|---------------------|---------------------|
| 4.7 | 63 | 475MTR063LD | 3 | 11x20.5 | 0.8 |
| 4.7 | 100 | 475MTR100KD | 5 | 13x20.5 | 0.8 |
| 4.7 | 250 | 475MTR250KG | 8 | 17x29 | 0.8 |
| 4.7 | 250 | 475MTR250KJ | 5 | 15x34 | 0.8 |
| 4.7 | 400 | 475MTR400KJ | 8.5 | 21.5x34 | 1 |
| 4.7 | 630 | 475MTR630KN | 8 | 30x46.5 | 1 |
| 6.8 | 63 | 685MTR063KD | 3 | 12.5x20.5 | 0.8 |
| 6.8 | 100 | 685MTR100KG | 3 | 13x29 | 0.8 |
| 6.8 | 250 | 685MTR250KJ | 5 | 17.5x34 | 0.8 |
| 6.8 | 400 | 685MTR400KJ | 8.5 | 25.5x34 | 1 |
| 6.8 | 400 | 685MTR400KN | 6 | 22x46.5 | 1 |
| 6.8 | 630 | 685MTR630KN | 8 | 35x46.5 | 1 |
| 10 | 63 | 106MTR063KG | 2 | 12.5x29 | 0.8 |
| 10 | 100 | 106MTR100KG | 3 | 15.5x29 | 0.8 |
| 10 | 100 | 106MTR100KJ | 2 | 14x34 | 0.8 |
| 10 | 250 | 106MTR250KJ | 5 | 21x34 | 1 |
| 10 | 400 | 106MTR400KN | 6 | 26x46.5 | 1 |
| 15 | 63 | 156MTR063KG | 2 | 17.5x29 | 0.8 |
| 15 | 100 | 156MTR100KJ | 2 | 16.5x34 | 0.8 |
| 15 | 250 | 156MTR250KJ | 5 | 25x34 | 1 |

| Capacitance (μF) | WVDC | IC [®] PART NUMBER | dv/dt (v/μs) | Dimensions D×L (mm) | Lead wire dia. (mm) |
|------------------|------|-----------------------------|--------------|---------------------|---------------------|
| 15 | 250 | 156MTR250KN | 3.5 | 22x46.5 | 1 |
| 15 | 400 | 156MTR400KN | 6 | 31.5x46.5 | 1 |
| 22 | 63 | 226MTR063KG | 2 | 17.5x29 | 0.8 |
| 22 | 100 | 226MTR100KJ | 2 | 19.5x34 | 1 |
| 22 | 250 | 226MTR250KN | 3.5 | 25.5x46.5 | 1 |
| 22 | 400 | 226MTR400KN | 6 | 37x46.5 | 1 |
| 33 | 63 | 336MTR063KJ | 1 | 19.5x34 | 1 |
| 33 | 100 | 336MTR100KJ | 2 | 23x34 | 1 |
| 33 | 250 | 336MTR250KN | 3.5 | 30.5x46.5 | 1 |
| 47 | 63 | 476MTR063KJ | 1 | 22.5x34 | 1 |
| 47 | 100 | 476MTR100KJ | 2 | 27x34 | 1 |
| 47 | 100 | 476MTR100KN | 1 | 23.5x46.5 | 1 |
| 47 | 250 | 476MTR250KN | 3.5 | 36x46.5 | 1 |
| 68 | 63 | 686MTR063KN | 1 | 23x46.5 | 1 |
| 68 | 100 | 686MTR100KN | 1 | 28x46.5 | 1 |
| 100 | 63 | 107MTR063KN | 1 | 27.5x46.5 | 1 |
| 100 | 100 | 107MTR100KN | 1 | 33x46.5 | 1 |
| 120 | 100 | 127MTR100KN | 1 | 36x46.5 | 1 |
| 150 | 63 | 157MTR063KN | 1 | 33x46.5 | 1 |



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