

MCI High Current Consumer METCOM Powder Inductor Engineering Kit

Sample Kit Contents

| KEMET Part Number | Inductance (μH) at 100 kHz, 1 mA | Inductance Tolerance | Rated Current (A) I_{rms} (Reference) | DC Resistance ($\text{m}\Omega$) Typical | Thickness (mm) Maximum | Temperature | Quantity |
|-------------------|---|----------------------|--|--|------------------------|-------------|----------|
| MPX1D0520LR22 | 0.22 | 20% | 15.0 | 5.00 | 2.0 | -55/+155°C | 2 |
| MPX1D0520LR47 | 0.47 | 20% | 12.0 | 7.80 | 2.0 | -55/+155°C | 2 |
| MPX1D0520LR10 | 1.00 | 20% | 7.6 | 18.90 | 2.0 | -55/+155°C | 2 |
| MPX1D0530LR22 | 0.22 | 20% | 18.4 | 3.90 | 3.0 | -55/+155°C | 2 |
| MPX1D0530LR47 | 0.47 | 20% | 13.8 | 6.90 | 3.0 | -55/+155°C | 2 |
| MPX1D0530LR10 | 1.00 | 20% | 10.7 | 11.50 | 3.0 | -55/+155°C | 2 |
| MPX1D0618LR10 | 0.10 | 20% | 18.9 | 2.80 | 1.8 | -55/+155°C | 2 |
| MPX1D0618LR22 | 0.22 | 20% | 13.7 | 5.30 | 1.8 | -55/+155°C | 2 |
| MPX1D0618LR47 | 0.47 | 20% | 10.7 | 8.50 | 1.8 | -55/+155°C | 2 |
| MPX1D0618LR10 | 1.00 | 20% | 7.1 | 19.30 | 1.8 | -55/+155°C | 2 |
| MPX1D0624LR10 | 0.10 | 20% | 26.6 | 1.80 | 2.4 | -55/+155°C | 2 |
| MPX1D0624LR22 | 0.22 | 20% | 19.4 | 3.30 | 2.4 | -55/+155°C | 2 |
| MPX1D0624LR47 | 0.47 | 20% | 15.4 | 5.20 | 2.4 | -55/+155°C | 2 |
| MPX1D0624LR10 | 1.00 | 20% | 10.8 | 10.50 | 2.4 | -55/+155°C | 2 |
| MPX1D0630LR10 | 0.10 | 20% | 31.1 | 1.50 | 3.0 | -55/+155°C | 2 |
| MPX1D0630LR22 | 0.22 | 20% | 23.3 | 2.60 | 3.0 | -55/+155°C | 2 |
| MPX1D0630LR47 | 0.47 | 20% | 18.7 | 4.00 | 3.0 | -55/+155°C | 2 |
| MPX1D0630LR10 | 1.00 | 20% | 13.1 | 8.20 | 3.0 | -55/+155°C | 2 |
| MPX1D0830LR22 | 0.22 | 20% | 30.7 | 1.90 | 3.0 | -55/+155°C | 2 |
| MPX1D0830LR47 | 0.47 | 20% | 24.0 | 3.10 | 3.0 | -55/+155°C | 2 |
| MPX1D0830LR10 | 1.00 | 20% | 17.6 | 5.70 | 3.0 | -55/+155°C | 2 |
| MPX1D0840LR22 | 0.22 | 20% | 35.4 | 1.50 | 4.0 | -55/+155°C | 2 |
| MPX1D0840LR47 | 0.47 | 20% | 25.8 | 2.70 | 4.0 | -55/+155°C | 2 |
| MPX1D0840LR10 | 1.00 | 20% | 20.8 | 4.20 | 4.0 | -55/+155°C | 2 |
| MPX1D1040LR22 | 0.22 | 20% | 32.7 | 1.60 | 4.0 | -55/+155°C | 2 |
| MPX1D1040LR47 | 0.47 | 20% | 26.4 | 2.40 | 4.0 | -55/+155°C | 2 |
| MPX1D1040LR10 | 1.00 | 20% | 21.1 | 3.80 | 4.0 | -55/+155°C | 2 |
| MPX1D1235LR22 | 0.22 | 20% | 35.2 | 1.60 | 3.5 | -55/+155°C | 2 |
| MPX1D1235LR47 | 0.47 | 20% | 28.9 | 2.30 | 3.5 | -55/+155°C | 2 |
| MPX1D1235LR10 | 1.00 | 20% | 21.5 | 4.20 | 3.5 | -55/+155°C | 2 |
| MPX1D1250LR22 | 0.22 | 20% | 42.7 | 1.20 | 5.0 | -55/+155°C | 2 |
| MPX1D1250LR47 | 0.47 | 20% | 34.8 | 1.80 | 5.0 | -55/+155°C | 2 |
| MPX1D1250LR10 | 1.00 | 20% | 28.8 | 2.60 | 5.0 | -55/+155°C | 2 |
| MPX1D1264LR22 | 0.22 | 20% | 53.0 | 1.10 | 6.4 | -55/+155°C | 2 |
| MPX1D1264LR47 | 0.47 | 20% | 38.2 | 1.70 | 6.4 | -55/+155°C | 2 |
| MPX1D1264LR10 | 1.00 | 20% | 32.2 | 2.30 | 6.4 | -55/+155°C | 2 |
| MPX1D1740LR47 | 0.47 | 20% | 34.0 | 1.80 | 4.0 | -55/+155°C | 1 |
| MPX1D1740LR10 | 1.00 | 20% | 30.0 | 2.30 | 4.0 | -55/+155°C | 1 |
| MPX1D1770LR47 | 0.47 | 20% | 52.5 | 1.00 | 7.0 | -55/+155°C | 1 |
| MPX1D1770LR10 | 1.00 | 20% | 38.0 | 1.80 | 7.0 | -55/+155°C | 1 |
| MPX1D2213LR47 | 0.47 | 20% | 90.0 | 0.48 | 13.0 | -55/+155°C | 1 |
| MPX1D2213LR10 | 1.00 | 20% | 74.0 | 1.00 | 13.0 | -55/+155°C | 1 |
| KEMET Part Number | Inductance (μH) at 100 kHz, 1 mA | Inductance Tolerance | Rated Current (A) I_{rms} (Reference) | DC Resistance ($\text{m}\Omega$) Typical | Thickness (mm) Maximum | Temperature | Quantity |

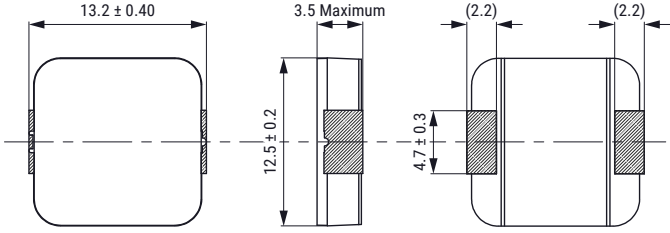
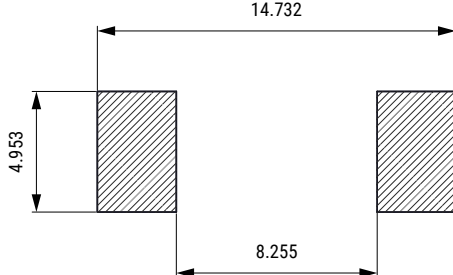
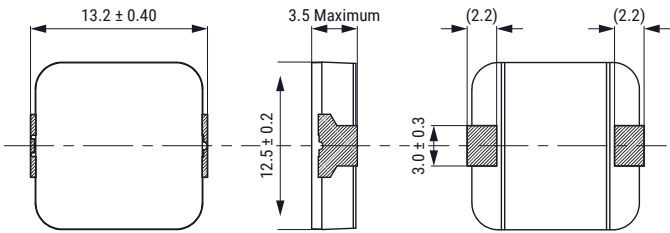
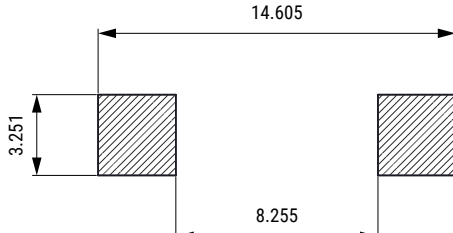
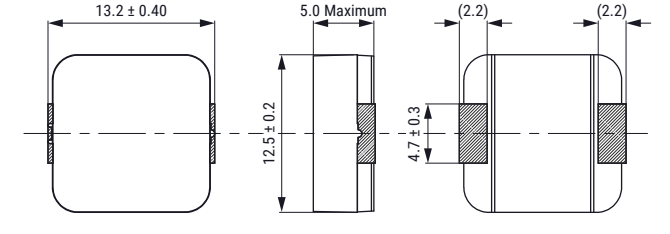
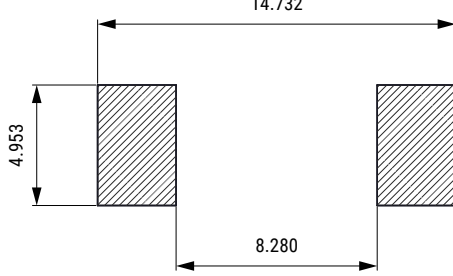
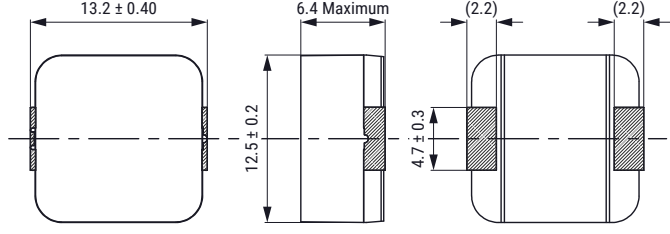
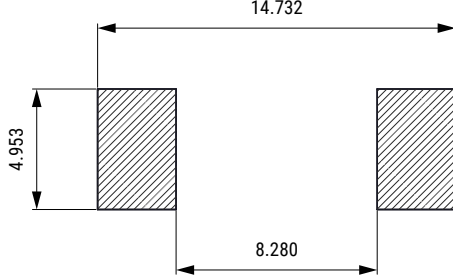
Dimensions

| Case Size | Dimensions (mm) | Land Pattern (mm) |
|-----------|-----------------|-------------------|
| MPX1D0520 | | |
| MPX1D0530 | | |
| MPX1D0618 | | |
| MPX1D0624 | | |

Dimensions cont.

| Case Size | Dimensions (mm) | Land Pattern (mm) |
|--|--|-------------------------------------|
| MPX1D0630 | <p>7.0 ± 0.25 3.0 Maximum (1.3) (1.3) 6.5 ± 0.2 3.2 ± 0.3</p> | <p>8.255 3.429 3.429</p> |
| MPX1D0830 | <p>8.65 ± 0.25 3.0 Maximum (1.3) (1.3) 8.0 ± 0.2 5.1 ± 0.3</p> | <p>9.652 5.334 4.826</p> |
| MPX1D0840 | <p>8.65 ± 0.25 4.0 Maximum (1.3) (1.3) 8.0 ± 0.2 5.1 ± 0.3</p> | <p>9.652 5.334 4.826</p> |
| MPX1D1040 For values up to 1.5 μH or below | <p>10.8 ± 0.30 4.0 Maximum (2.0) (2.0) 10.0 ± 0.2 4.7 ± 0.3</p> | <p>12.192 4.953 5.842</p> |

Dimensions cont.

| Case Size | Dimensions (mm) | Land Pattern (mm) |
|--|--|---|
| MPX1D1235 For values up to 0.47 μ H or below |  |  |
| MPX1D1235 For values from 0.68 μ H or above |  |  |
| MPX1D1250 |  |  |
| MPX1D1264 |  |  |

Dimensions cont.

| Case Size | Dimensions (mm) | Land Pattern (mm) |
|-----------|--|---|
| MPX1D1740 | <p>Technical drawing of MPX1D1740 inductor showing dimensions: 17.0 ± 0.5 mm width, 17.1 ± 0.5 mm height, 4.0 Maximum lead length, and 2.1 mm lead thickness.</p> | <p>Land pattern diagram for MPX1D1740 showing a 20.1 mm wide pad with a 12.35 mm high lead and a 12.4 mm wide gap.</p> |
| MPX1D1770 | <p>Technical drawing of MPX1D1770 inductor showing dimensions: 17.0 ± 0.5 mm width, 17.1 ± 0.5 mm height, 7.0 Maximum lead length, and 2.1 mm lead thickness.</p> | <p>Land pattern diagram for MPX1D1770 showing a 20.1 mm wide pad with a 12.35 mm high lead and a 12.4 mm wide gap.</p> |
| MPX1D2213 | <p>Technical drawing of MPX1D2213 inductor showing dimensions: 22.5 ± 0.5 mm width, 22.0 ± 0.5 mm height, 13.0 Maximum lead length, and 5.0 mm lead thickness.</p> | <p>Land pattern diagram for MPX1D2213 showing a 23.3 mm wide pad with an 18.8 mm high lead and an 11.5 mm wide gap.</p> |