



Low Profile Surface Mount Inductors

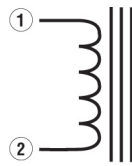
- Operating Temperature Range -40°C to +130°C
- Ambient Temperature, Maximum 80°C
- Insulation System Class B, 130°C
- Temperature Rise, Maximum 50°C

Specifications

| Part Number | Operating Values | | | Control Values ⁽³⁾ | | | |
|-----------------|--------------------------------------|-------------------------|---|-------------------------------|--|------------------------------|-----------------------------|
| | L _{DC} μH ⁽¹⁾ | I _{DC} Amps | ET _{op} V-μS ⁽²⁾ | Case Size | L w/o DC L _o μH ± 20% | DC Resistance mΩ, Nom. | DC Resistance mΩ Max. |
| HM77 - 10001LF | 1.01 | 3.40 | 0.532 | 1 | 1.10 | 11.00 | 12.5 |
| HM77 - 20001LF | 6.20 | 1.40 | 1.33 | 1 | 7.00 | 60.30 | 70 |
| HM77 - 30001LF | 17.6 | 1.00 | 2.40 | 1 | 22.7 | 109.00 | 125 |
| HM77 - 40002LF | 3.80 | 4.80 | 1.76 | 2 | 5.20 | 17.0 | 19.1 |
| HM77 - 50002LF | 9.40 | 2.80 | 2.70 | 2 | 12.3 | 37.80 | 43.4 |
| HM77 - 60002LF | 29.7 | 1.40 | 4.60 | 2 | 35.3 | 141.00 | 166 |
| HM77 - 70002LF | 114 | 0.94 | 10 | 2 | 167 | 330.00 | 380 |
| HM77 - 80003LF | 2.50 | 8.00 | 1.77 | 3 | 3.80 | 7.20 | 8.30 |
| HM77 - 90003LF | 5.10 | 5.40 | 2.51 | 3 | 7.50 | 14.30 | 17.7 |
| HM77 - 10003LF | 16.2 | 2.70 | 4.29 | 3 | 21.9 | 54.70 | 63 |
| HM77 - 11003LF | 58.1 | 1.30 | 7.83 | 3 | 73 | 233.00 | 290 |
| HM77 - 12003LF | 192 | 0.90 | 15.7 | 3 | 292 | 472.00 | 560 |
| HM77 - 13003LF | 383 | 0.72 | 23.5 | 3 | 672 | 750.00 | 862 |
| HM77 - 14004LF | 0.91 | 13.3 | 1.035 | 4 | 1.25 | 4.56 | 5.70 |
| HM77 - 15004LF | 1.32 | 11.5 | 1.33 | 4 | 2.10 | 4.56 | 5.70 |
| HM77 - 16004LF | 4.90 | 7.80 | 3.04 | 4 | 7.90 | 10.50 | 12.4 |
| HM77 - 17004LF | 9.00 | 5.50 | 4.06 | 4 | 14 | 19.30 | 22.3 |
| HM77 - 18004LF | 29.1 | 2.70 | 6.90 | 4 | 40.5 | 75.80 | 85 |
| HM77 - 19004LF | 645 | 0.74 | 36.5 | 4 | 1134 | 1040 | 1250 |
| HM77 - 30004LF | 33 | 3.0 | 9.50 | 4 | 48 | 48.5 | 59 |
| HM77 - 20005LF | 1.75 | 10.9 | 1.83 | 5 | 2.80 | 5.68 | 6.90 |
| HM77 - 21005LF | 2.50 | 11.4 | 2.23 | 5 | 4.20 | 6.19 | 7.50 |
| HM77 - 22006LF | 2.03 | 13 | 3.30 | 6 | 2.70 | 5.60 | 6.80 |
| HM77 - 23006LF | 3.50 | 12.4 | 3.13 | 6 | 6.50 | 7.54 | 8.7 |
| HM77 - 24006LF | 4.70 | 10.4 | 3.58 | 6 | 8.40 | 8.30 | 10.0 |
| HM77 - 25006LF | 9.30 | 7.20 | 4.92 | 6 | 16 | 20.05 | 23.0 |
| HM77 - 26006LF | 16.1 | 5.10 | 6.27 | 6 | 25.9 | 30.3 | 32 |
| HM77 - 27006LF | 50 | 2.60 | 10.5 | 6 | 72.9 | 115 | 130 |
| HM77 - 28006LF | 1070 | 0.710 | 54.4 | 6 | 1950 | 1480 | 1700 |
| HM77 - 29006LF | 68 | 3.00 | 9.50 | 6 | 122 | 85 | 102 |
| HM77 - 31007ALF | 2.5 | 11.4 | 2.23 | 7 | 4.20 | 5.20 | 6.20 |
| HM77 - 32007ALF | 1.68 | 13.9 | 1.83 | 7 | 2.80 | 3.60 | 4.0 |
| HM77 - 33010ALF | 5.2 | 15.4 | 5.21 | 10 | 10.5 | 6.20 | 7.40 |
| HM77 - 34010ALF | 77 | 2.7 | 52.8 ⁽⁴⁾ | 10 | 84.6 | 90 | 110 |
| HM77 - 35010ALF | 38 | 3.0 | 29.7 ⁽⁴⁾ | 10 | 49 | 50 | 70 |
| HM77 - 36010ALF | 114 | 2.22 | 62.7 ⁽⁴⁾ | 10 | 121 | 100 | 120 |
| HM77 - 37010ALF | 191 | 1.50 | 72.6 ⁽⁵⁾ | 10 | 275 | 250 | 290 |
| HM77 - 38010ALF | 115 | 1.81 | 75.9 ⁽⁵⁾ | 10 | 159 | 190 | 220 |
| HM77 - 39010ALF | 38 | 3.00 | 42.9 ⁽⁵⁾ | 10 | 52 | 80 | 100 |

- Notes:
- (1) Inductance values are rated at -40°C to +130°C operating temperature range with rated DC current flowing and the operating ET_{op} across the inductor.
 - (2) ET_{op} is rated at 500 kHz except where designated otherwise.
 - (3) The control values of inductance are measured at the operating flux density equal or less than 10 gauss and without DC current.
 - (4) ET_{op} is rated at 250 kHz.
 - (5) ET_{op} is rated at 150 kHz.

Schematic



Outline Dimensions (Inch/mm) / Packaging

Figure 1

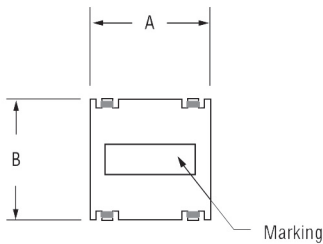


Figure 2

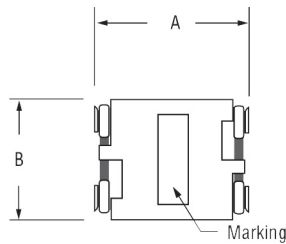
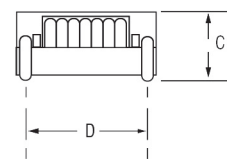
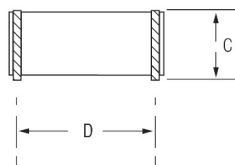
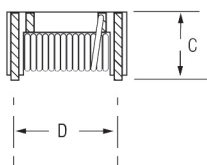
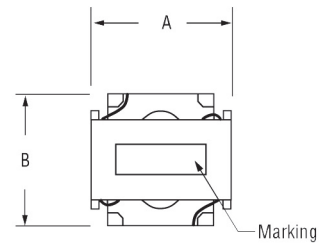
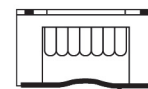


Figure 3

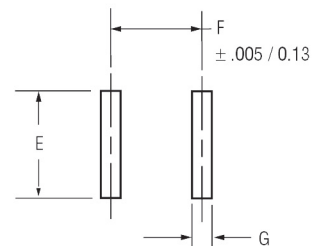


| Case Size | A | B | C | D | E | F | G | Tube Capacity | Reel Capacity | Figure |
|-----------|---------------|---------------|---------------|---------------|---------------|---------------|--------------|---------------|---------------|--------|
| 1 | .340 8.64 | .340 8.64 | .250 6.35 | .260 6.60 | .330 8.38 | .270 6.86 | .060 1.52 | 60 | 500 | 1 |
| 2 | .447 11.35 | .447 11.35 | .350 8.89 | .350 8.89 | .425 10.80 | .360 9.14 | .060 1.52 | 50 | 350 | 1 |
| 3 | .571 14.50 | .571 14.50 | .350 8.89 | .450 11.43 | .550 13.97 | .460 11.68 | .100 2.54 | 35 | 350 | 2 |
| 4 | .625 15.88 | .600 15.24 | .360 9.14 | .500 12.70 | .580 14.73 | .510 12.95 | .100 2.54 | 37 | 200 | 2 |
| 5 | .725 18.40 | .585 14.90 | .360 9.14 | .610 15.50 | .580 14.73 | .610 15.50 | .100 2.54 | 37 | 200 | 2 |
| 6 | .805 20.40 | .710 18.03 | .445 11.30 | .680 17.27 | .690 17.53 | .690 17.53 | .100 2.54 | 30 | 150 | 2 |
| 7 | .669 17.00 | .669 17.00 | .400 10.16 | .560 14.22 | .665 16.89 | .560 14.22 | .100 2.54 | 35 | 200 | 2 |
| 10 | .945 24.00 | .965 24.50 | .394 10.00 | .820 20.83 | .950 24.13 | .830 21.08 | .110 2.80 | 23 | 150 | 3 |



.005 / 0.13
Coplanarity
measured
at 4 points.

Recommended Solder Pad Layout



- Notes: (1) For case size 1 to 6, the reel capacity is for part number ending with suffix 'LFTR'.
 (2) For case size 7 & 10, the reel capacity is for part number ending with suffix 'ALFTR'

Ordering Information

