

Electrical / Environmental

- Operating Temperature Range -40°C to +125°C
- Ambient Temperature, Maximum 70°C
- Insulation System Class F, 155°C
- Temperature Rise, Maximum 40°C
- Operating Frequency Up to 3MHz

HM79

Low Cost Medium Power Surface Mount Inductors



Specifications @ 25°C

| Part Number | Inductance $\mu\text{H} \pm 20\% (1)$ | DC Resistance $\Omega \text{ Max.}$ | Rated Current (2) Amps | Part Number | Inductance $\mu\text{H} \pm 20\% (1)$ | DC Resistance $\Omega \text{ Max.}$ | Rated Current (2) Amps |
|--------------|--|--|---------------------------|--------------|--|--|---------------------------|
| HM79-101R0LF | 1.0 | 0.048 | 2.56 | HM79-30330LF | 33 | 0.170 | 0.85 |
| HM79-101R4LF | 1.4 | 0.056 | 2.52 | HM79-30390LF | 39 | 0.217 | 0.74 |
| HM79-101R8LF | 1.8 | 0.063 | 1.95 | HM79-30470LF | 47 | 0.252 | 0.68 |
| HM79-102R2LF | 2.2 | 0.071 | 1.75 | HM79-30560LF | 56 | 0.282 | 0.64 |
| HM79-102R7LF | 2.7 | 0.078 | 1.58 | HM79-30680LF | 68 | 0.332 | 0.59 |
| HM79-103R3LF | 3.3 | 0.086 | 1.44 | HM79-30820LF | 82 | 0.406 | 0.54 |
| HM79-103R9LF | 3.9 | 0.093 | 1.33 | HM79-30101LF | 100 | 0.481 | 0.51 |
| HM79-104R7LF | 4.7 | 0.108 | 1.15 | HM79-30121LF | 120 | 0.536 | 0.49 |
| HM79-105R6LF | 5.6 | 0.125 | 0.99 | HM79-30151LF | 150 | 0.755 | 0.40 |
| HM79-106R8LF | 6.8 | 0.131 | 0.95 | HM79-30181LF | 180 | 1.022 | 0.36 |
| HM79-108R2LF | 8.2 | 0.146 | 0.84 | HM79-30221LF | 220 | 1.200 | 0.31 |
| HM79-10100LF | 10 | 0.182 | 1.04 | HM79-30271LF | 270 | 1.306 | 0.29 |
| HM79-10120LF | 12 | 0.210 | 0.97 | HM79-30331LF | 330 | 1.495 | 0.28 |
| HM79-10150LF | 15 | 0.235 | 0.85 | HM79-40100LF | 10 | 0.07 | 2.30 |
| HM79-10180LF | 18 | 0.338 | 0.74 | HM79-40120LF | 12 | 0.08 | 2.00 |
| HM79-10220LF | 22 | 0.378 | 1.00 | HM79-40150LF | 15 | 0.09 | 1.80 |
| HM79-10270LF | 27 | 0.522 | 0.62 | HM79-40180LF | 18 | 0.10 | 1.60 |
| HM79-10330LF | 33 | 0.540 | 0.56 | HM79-40220LF | 22 | 0.11 | 1.50 |
| HM79-201R0LF | 1.0 | 0.015 | 8.00 | HM79-40270LF | 27 | 0.12 | 1.30 |
| HM79-204R7LF | 4.7 | 0.057 | 5.50 | HM79-40330LF | 33 | 0.13 | 1.20 |
| HM79-206R8LF | 6.8 | 0.060 | 2.00 | HM79-40390LF | 39 | 0.16 | 1.10 |
| HM79-20100LF | 10 | 0.10 | 1.44 | HM79-40470LF | 47 | 0.18 | 1.00 |
| HM79-20120LF | 12 | 0.12 | 1.40 | HM79-40560LF | 56 | 0.24 | 0.94 |
| HM79-20150LF | 15 | 0.14 | 1.30 | HM79-40680LF | 68 | 0.28 | 0.85 |
| HM79-20180LF | 18 | 0.15 | 1.23 | HM79-40820LF | 82 | 0.37 | 0.78 |
| HM79-20220LF | 22 | 0.18 | 1.11 | HM79-40101LF | 100 | 0.43 | 0.72 |
| HM79-20270LF | 27 | 0.20 | 0.97 | HM79-40121LF | 120 | 0.47 | 0.66 |
| HM79-20330LF | 33 | 0.23 | 0.88 | HM79-40151LF | 150 | 0.64 | 0.58 |
| HM79-20390LF | 39 | 0.32 | 0.80 | HM79-40181LF | 180 | 0.71 | 0.51 |
| HM79-20470LF | 47 | 0.37 | 0.72 | HM79-40221LF | 220 | 0.96 | 0.49 |
| HM79-20560LF | 56 | 0.42 | 0.68 | HM79-40271LF | 270 | 1.11 | 0.42 |
| HM79-20680LF | 68 | 0.46 | 0.61 | HM79-40331LF | 330 | 1.26 | 0.40 |
| HM79-20820LF | 82 | 0.60 | 0.58 | HM79-40391LF | 390 | 1.77 | 0.36 |
| HM79-20101LF | 100 | 0.70 | 0.52 | HM79-40471LF | 470 | 1.96 | 0.34 |
| HM79-20121LF | 120 | 0.93 | 0.48 | HM79-452R3LF | 2.3 | 0.008 | 9.00 |
| HM79-20151LF | 150 | 1.10 | 0.40 | HM79-461R5LF | 1.5 | 0.005 | 14.00 |
| HM79-20181LF | 180 | 1.38 | 0.38 | HM79-50100LF | 10 | 0.053 | 2.38 |
| HM79-20221LF | 220 | 1.57 | 0.35 | HM79-50120LF | 12 | 0.061 | 2.13 |
| HM79-30100LF | 10 | 0.080 | 1.44 | HM79-50150LF | 15 | 0.070 | 1.87 |
| HM79-30120LF | 12 | 0.089 | 1.39 | HM79-50180LF | 18 | 0.081 | 1.73 |
| HM79-30150LF | 15 | 0.104 | 1.24 | HM79-50220LF | 22 | 0.088 | 1.60 |
| HM79-30180LF | 18 | 0.111 | 1.12 | HM79-50270LF | 27 | 0.100 | 1.44 |
| HM79-30220LF | 22 | 0.129 | 1.07 | HM79-50330LF | 33 | 0.120 | 1.26 |
| HM79-30270LF | 27 | 0.153 | 0.94 | HM79-50390LF | 39 | 0.151 | 1.20 |

Specifications @ 25°C (Cont'd)

| Part Number | Inductance $\mu\text{H} \pm 20\%$ (1) | DC Resistance Ω Max | Rated Current (2) Amps | Part Number | Inductance $\mu\text{H} \pm 20\%$ (1) | DC Resistance Ω Max | Rated Current (2) Amps |
|--------------|---------------------------------------|----------------------------|------------------------|--------------|---------------------------------------|----------------------------|------------------------|
| HM79-50470LF | 47 | 0.170 | 1.10 | HM79-60270LF | 27 | 0.11 | 1.76 |
| HM79-50560LF | 56 | 0.199 | 1.01 | HM79-60330LF | 33 | 0.12 | 1.50 |
| HM79-50680LF | 68 | 0.223 | 0.91 | HM79-60390LF | 39 | 0.14 | 1.37 |
| HM79-50820LF | 82 | 0.252 | 0.85 | HM79-60470LF | 47 | 0.17 | 1.28 |
| HM79-50101LF | 100 | 0.344 | 0.74 | HM79-60560LF | 56 | 0.19 | 1.17 |
| HM79-50121LF | 120 | 0.396 | 0.69 | HM79-60680LF | 68 | 0.22 | 1.11 |
| HM79-50151LF | 150 | 0.544 | 0.61 | HM79-60820LF | 82 | 0.25 | 1.00 |
| HM79-50181LF | 180 | 0.621 | 0.56 | HM79-60101LF | 100 | 0.35 | 0.97 |
| HM79-50221LF | 220 | 0.721 | 0.53 | HM79-60121LF | 120 | 0.40 | 0.89 |
| HM79-50271LF | 270 | 0.949 | 0.45 | HM79-60151LF | 150 | 0.47 | 0.78 |
| HM79-50331LF | 330 | 1.100 | 0.42 | HM79-60181LF | 180 | 0.63 | 0.72 |
| HM79-50391LF | 390 | 1.245 | 0.38 | HM79-60221LF | 220 | 0.73 | 0.66 |
| HM79-50471LF | 470 | 1.526 | 0.35 | HM79-60271LF | 270 | 0.97 | 0.57 |
| HM79-50561LF | 560 | 1.904 | 0.32 | HM79-60331LF | 330 | 1.15 | 0.52 |
| HM79-60100LF | 10 | 0.06 | 2.60 | HM79-60391LF | 390 | 1.30 | 0.48 |
| HM79-60120LF | 12 | 0.07 | 2.45 | HM79-60471LF | 470 | 1.48 | 0.42 |
| HM79-60150LF | 15 | 0.08 | 2.27 | HM79-60561LF | 560 | 1.90 | 0.33 |
| HM79-60180LF | 18 | 0.09 | 2.15 | HM79-60681LF | 680 | 2.25 | 0.28 |
| HM79-60220LF | 22 | 0.10 | 1.95 | HM79-60821LF | 820 | 2.55 | 0.24 |

Notes: (1) Test conditions for case sizes 10, 20, 45 & 46 = 100kHz, 0.1 Vrms without DC current. Inductance for case sizes 30, 40, 50 & 60 is measured at 1kHz without DC current.

(2) Rated DC current is the approximate current at which inductance will be decreased by 10% from its initial (zero DC) value or the DC current at which $\Delta T = 40^\circ\text{C}$, whichever is lower.

Outline Dimensions (Inch/mm) / Packaging

Top View

Side View

Bottom View

Recommended Solder Pad Layout

| Case size | A | B | C | D | E | F | G | Reel Capacity |
|-----------|--------------|-------------|-------------|--------------|--------------|-------------|--------------|---------------|
| 10 | .177 4.5 | .158 4.0 | .126 3.2 | .177 4.5 | .205 5.2 | .059 1.5 | .069 1.75 | 1500 |
| 20 | .228 5.8 | .205 5.2 | .177 4.5 | .228 5.8 | .240 6.1 | .067 1.7 | .085 2.15 | 1500 |
| 30 | .307 7.8 | .276 7.0 | .140 3.5 | .315 8.0 | .315 8.0 | .079 2.0 | .118 3.0 | 1000 |
| 40 | .307 7.8 | .276 7.0 | .199 5.0 | .315 8.0 | .315 8.0 | .079 2.0 | .118 3.0 | 1000 |
| 45 | .307 7.8 | .276 7.0 | .228 5.8 | .315 8.0 | .315 8.0 | .079 2.0 | .118 3.0 | 800 |
| 46 | .307 7.8 | .276 7.0 | .307 7.8 | .315 8.0 | .315 8.0 | .079 2.0 | .118 3.0 | 500 |
| 50 | .394 10.0 | .354 9.0 | .158 4.0 | .394 10.0 | .394 10.0 | .098 2.5 | .148 3.75 | 1000 |
| 60 | .394 10.0 | .354 9.0 | .213 5.4 | .394 10.0 | .394 10.0 | .098 2.5 | .148 3.75 | 500 |

Ordering Information

HM79 - 30 101 LF TR13

Model Series

Case Size: 10, 20, 30, 40, 45, 46, 50, 60

Inductance Code: First 2 digits are significant. Last digit denotes the number of trailing zeros. For values below 10 μH , 'R' denotes the decimal point.

Lead-Free

TR - Tape & Reel Packing
13 - 13" reel