

## High Current Surface Mount Inductors

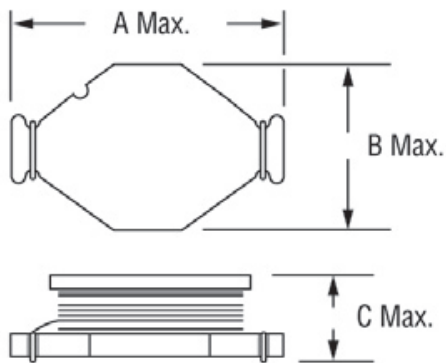
- Operating Temperature Range -40°C to +125°C
- Ambient Temperature, Maximum 85°C
- Insulation System Class B, 130°C
- Temperature Rise, Maximum 40°C

### Specifications @ 25 °C

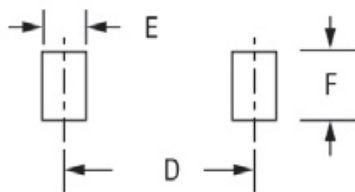
| Part Number  | — Rated Inductance —    |                                     | DCR Max. mΩ | Rated Current I <sub>RMS</sub> (2) Amps | I <sub>SAT</sub> (3) Amps | Part Number  | — Rated Inductance —    |                                     | DCR Max. mΩ | Rated Current I <sub>RMS</sub> (2) Amps | I <sub>SAT</sub> (3) Amps |
|--------------|-------------------------|-------------------------------------|-------------|-----------------------------------------|---------------------------|--------------|-------------------------|-------------------------------------|-------------|-----------------------------------------|---------------------------|
|              | L <sub>DC</sub> μH Typ. | L w/o DC L <sub>0</sub> (1) μH ±20% |             |                                         |                           |              | L <sub>DC</sub> μH Typ. | L w/o DC L <sub>0</sub> (1) μH ±20% |             |                                         |                           |
| HM75-10R47LF | 0.47                    | 0.47                                | 7.9         | 6.0                                     | 7.7                       | HM75-30220LF | 22                      | 23.9                                | 49.1        | 3.1                                     | 3.7                       |
| HM75-101R0LF | 1.0                     | 1.0                                 | 12.5        | 4.4                                     | 5.3                       | HM75-30330LF | 33                      | 33.9                                | 69          | 2.4                                     | 3.0                       |
| HM75-101R5LF | 1.5                     | 1.6                                 | 14.5        | 4.2                                     | 4.5                       | HM75-30470LF | 47                      | 51                                  | 108.2       | 1.9                                     | 2.4                       |
| HM75-102R2LF | 2.2                     | 2.26                                | 24.1        | 3.1                                     | 3.5                       | HM75-30680LF | 68                      | 69.5                                | 156         | 1.6                                     | 2.0                       |
| HM75-103R3LF | 3.3                     | 3.45                                | 31.8        | 2.9                                     | 3.0                       | HM75-30101LF | 100                     | 101.4                               | 205.5       | 1.4                                     | 1.8                       |
| HM75-104R7LF | 4.7                     | 4.85                                | 54.7        | 2.2                                     | 2.6                       | HM75-40R47LF | 0.47                    | 0.47                                | 1.7         | 19.2                                    | 51.7                      |
| HM75-106R8LF | 6.8                     | 6.9                                 | 57.1        | 1.7                                     | 2.2                       | HM75-401R0LF | 1.0                     | 0.92                                | 2.5         | 17.3                                    | 37.3                      |
| HM75-10100LF | 10                      | 10.4                                | 81.3        | 1.5                                     | 1.9                       | HM75-401R3LF | 1.3                     | 1.3                                 | 3.5         | 15                                      | 25                        |
| HM75-10150LF | 15                      | 15.3                                | 124         | 1.2                                     | 1.5                       | HM75-402R2LF | 2.2                     | 2.2                                 | 4.7         | 12                                      | 20                        |
| HM75-10220LF | 22                      | 23                                  | 183         | 1.0                                     | 1.2                       | HM75-403R3LF | 3.3                     | 3.3                                 | 8.4         | 10                                      | 17                        |
| HM75-10330LF | 33                      | 33.6                                | 265         | 0.82                                    | 0.99                      | HM75-403R9LF | 3.9                     | 3.9                                 | 7.5         | 9                                       | 15                        |
| HM75-10470LF | 47                      | 48.5                                | 334         | 0.72                                    | 0.87                      | HM75-404R7LF | 4.7                     | 5.3                                 | 9.5         | 8.5                                     | 15                        |
| HM75-20R33LF | 0.33                    | 0.33                                | 2.0         | 16                                      | 20                        | HM75-406R0LF | 6.0                     | 6.0                                 | 13.7        | 7.5                                     | 12                        |
| HM75-20R68LF | 0.68                    | 0.80                                | 3.5         | 12                                      | 13                        | HM75-407R8LF | 7.8                     | 7.8                                 | 15.4        | 7.5                                     | 11                        |
| HM75-201R0LF | 1.0                     | 1.1                                 | 4.6         | 10                                      | 11                        | HM75-40100LF | 10                      | 10.0                                | 22.0        | 6.0                                     | 10                        |
| HM75-201R5LF | 1.5                     | 1.5                                 | 6.1         | 9                                       | 9                         | HM75-40150LF | 15                      | 15.6                                | 29.5        | 5.5                                     | 9.1                       |
| HM75-202R2LF | 2.2                     | 2.3                                 | 7.8         | 7.4                                     | 7.8                       | HM75-40220LF | 22                      | 22.6                                | 34          | 4.5                                     | 7.6                       |
| HM75-202R7LF | 2.7                     | 2.9                                 | 10.0        | 6.6                                     | 7.0                       | HM75-40330LF | 33                      | 34.5                                | 52          | 3.7                                     | 6.1                       |
| HM75-203R3LF | 3.3                     | 3.3                                 | 11.0        | 5.9                                     | 6.4                       | HM75-40470LF | 47                      | 48.0                                | 71          | 3.1                                     | 5.2                       |
| HM75-204R7LF | 4.7                     | 4.8                                 | 15.1        | 4.8                                     | 5.4                       | HM75-40680LF | 68                      | 69.2                                | 104         | 2.4                                     | 4.3                       |
| HM75-20100LF | 10                      | 10.0                                | 35          | 3.3                                     | 4.3                       | HM75-40101LF | 100                     | 103                                 | 156         | 2.0                                     | 3.6                       |
| HM75-20150LF | 15                      | 15.43                               | 45          | 3.1                                     | 3.0                       | HM75-50R78LF | 0.78                    | 0.78                                | 2.6         | 15                                      | 30                        |
| HM75-20220LF | 22                      | 22.5                                | 62          | 2.8                                     | 2.0                       | HM75-501R0LF | 1.0                     | 0.92                                | 3.1         | 17.3                                    | 37.3                      |
| HM75-20330LF | 33                      | 33.2                                | 92          | 2.1                                     | 1.7                       | HM75-501R5LF | 1.5                     | 1.52                                | 4.0         | 15                                      | 28.9                      |
| HM75-20470LF | 47                      | 48.7                                | 139         | 1.7                                     | 1.4                       | HM75-502R2LF | 2.2                     | 2.27                                | 5.6         | 12                                      | 23.7                      |
| HM75-20680LF | 68                      | 68.2                                | 177         | 1.5                                     | 1.2                       | HM75-503R3LF | 3.3                     | 3.2                                 | 7.0         | 11                                      | 20.0                      |
| HM75-20101LF | 100                     | 103                                 | 237         | 1.2                                     | 0.95                      | HM75-503R9LF | 3.9                     | 4.0                                 | 10          | 9                                       | 15                        |
| HM75-30R47LF | 0.47                    | 0.45                                | 2.1         | 16                                      | 25.1                      | HM75-504R7LF | 4.7                     | 4.7                                 | 9.5         | 6.5                                     | 10.7                      |
| HM75-301R0LF | 1.0                     | 1.34                                | 3.8         | 12.5                                    | 15.3                      | HM75-507R5LF | 7.5                     | 7.5                                 | 15          | 6                                       | 9.8                       |
| HM75-301R5LF | 1.5                     | 1.65                                | 4.9         | 10                                      | 12                        | HM75-50100LF | 10                      | 10                                  | 40          | 3.5                                     | 8.0                       |
| HM75-302R2LF | 2.2                     | 2.3                                 | 5.1         | 9.2                                     | 10.2                      | HM75-50150LF | 15                      | 15                                  | 50          | 3.0                                     | 7.0                       |
| HM75-303R3LF | 3.3                     | 3.44                                | 10          | 8.0                                     | 9.3                       | HM75-50220LF | 22                      | 22                                  | 66          | 2.5                                     | 5.5                       |
| HM75-304R7LF | 4.7                     | 5.0                                 | 11.4        | 6.5                                     | 7.7                       | HM75-50330LF | 33                      | 33                                  | 80          | 2.0                                     | 4.0                       |
| HM75-306R8LF | 6.8                     | 6.9                                 | 17.8        | 5.8                                     | 6.2                       | HM75-50470LF | 47                      | 47                                  | 110         | 1.6                                     | 3.8                       |
| HM75-30100LF | 10                      | 11                                  | 22.8        | 4.3                                     | 5.2                       | HM75-50680LF | 68                      | 68                                  | 170         | 1.2                                     | 3.0                       |
| HM75-30150LF | 15                      | 16.4                                | 35.0        | 3.9                                     | 4.3                       | HM75-50101LF | 100                     | 100                                 | 220         | 1.2                                     | 2.5                       |

- Notes:
- (1) Inductance is measured at 100kHz, 100 mVrms, OADC.
  - (2) RMS current is the approximate current at which inductance will decrease by 10% from its initial value (zero DC) or the DC current at which  $\Delta T = 40^\circ\text{C}$ , whichever is lower.
  - (3) Saturation current for approximately 30% roll-off.

## Outline Dimensions (Inch/mm)



### Recommended Solder Pad Layout



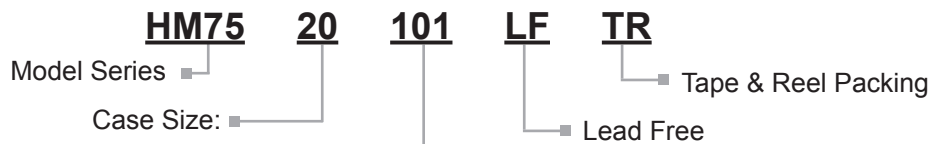
| Case Size | A             | B             | C            | D             | E            | F            |
|-----------|---------------|---------------|--------------|---------------|--------------|--------------|
| 10        | .350<br>8.89  | .240<br>6.09  | .217<br>5.5  | .249<br>6.33  | .137<br>3.48 | .225<br>5.72 |
| 20        | .530<br>13.46 | .395<br>10.03 | .272<br>6.90 | .410<br>10.41 | .135<br>3.43 | .295<br>7.49 |
| 30        | .768<br>19.5  | .52<br>13.21  | .283<br>7.2  | .610<br>15.5  | .135<br>3.43 | .283<br>7.2  |
| 40        | .865<br>21.97 | .60<br>15.24  | .315<br>8.0  | .690<br>17.53 | .150<br>3.81 | .370<br>9.40 |
| 50        | .530<br>13.46 | .395<br>10.03 | .50<br>12.7  | .410<br>10.41 | .135<br>3.43 | .295<br>7.49 |

## Packaging

**Standard:** Embossed Tape and Reel

|           |              |   |               |
|-----------|--------------|---|---------------|
| Reel:     | Diameter:    | = | 13" (330.2mm) |
| Capacity: | Case size 10 | = | 1,000 Units   |
|           | Case size 20 | = | 550 Units     |
|           | Case size 30 | = | 450 Units     |
|           | Case size 40 | = | 275 Units     |
|           | Case size 50 | = | 250 Units     |

## Ordering Information



First 2 digits are significant. Last digit denotes the number of trailing zeros. For values below 10 $\mu$ H, "R" denotes the decimal point.