

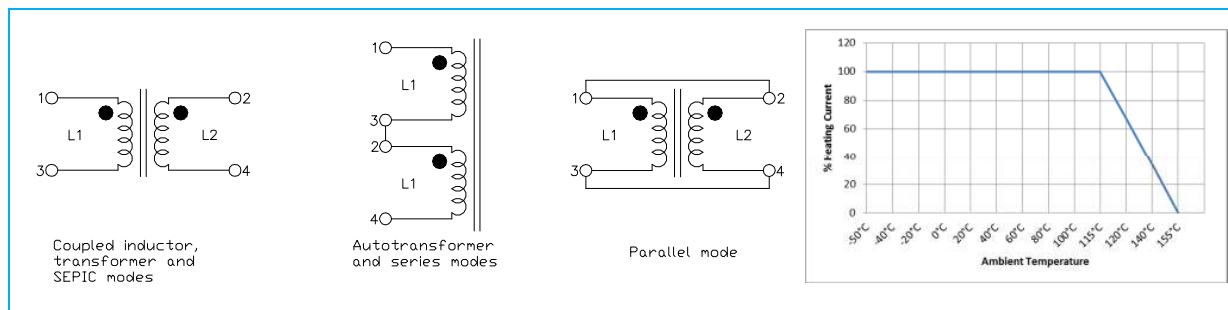
## Shielded Surface Mount Coupled Inductors

MODELS HA78D-128XXXXLF

- Operating Temperature Range -50°C to +155°C
- Temperature Rise, Maximum 40°C
- Operating Frequency Up to 3MHz
- AEC-Q200 CERTIFIED
- RoHS Compliant



### Electrical Schematic & Derating Curve



### Specifications @ 25°C

| Part Number     | Parallel Connection      |                               |  |  | Series Connection        |                               |  |  |
|-----------------|--------------------------|-------------------------------|--|--|--------------------------|-------------------------------|--|--|
|                 | L <sup>(1)</sup><br>(μH) | DCR Max <sup>(2)</sup><br>(Ω) | I <sub>sat</sub> <sup>(3)</sup><br>(A) | I <sub>rms</sub> <sup>(4)</sup><br>(A) | L <sup>(1)</sup><br>(μH) | DCR Max <sup>(2)</sup><br>(Ω) | I <sub>sat</sub> <sup>(3)</sup><br>(A) | I <sub>rms</sub> <sup>(4)</sup><br>(A) |
| HA78D-1284R7MLF | 4.7 ± 20%                | 0.019                         | 14.90                                  | 7.40                                   | 18.8 ± 25%               | 0.076                         | 7.70                                   | 3.60                                   |
| HA78D-1285R6MLF | 5.6 ± 20%                | 0.023                         | 13.40                                  | 7.20                                   | 22.4 ± 25%               | 0.092                         | 6.60                                   | 3.50                                   |
| HA78D-1286R8MLF | 6.8 ± 20%                | 0.024                         | 13.10                                  | 6.90                                   | 27.2 ± 25%               | 0.096                         | 6.40                                   | 3.40                                   |
| HA78D-1288R2MLF | 8.2 ± 20%                | 0.025                         | 10.80                                  | 6.60                                   | 32.8 ± 25%               | 0.100                         | 5.60                                   | 3.30                                   |
| HA78D-128100MLF | 10 ± 20%                 | 0.029                         | 10.50                                  | 6.20                                   | 40 ± 25%                 | 0.116                         | 5.40                                   | 3.20                                   |
| HA78D-128120MLF | 12 ± 20%                 | 0.031                         | 9.60                                   | 6.00                                   | 48 ± 25%                 | 0.124                         | 4.80                                   | 2.90                                   |
| HA78D-128150MLF | 15 ± 20%                 | 0.036                         | 9.10                                   | 5.80                                   | 60 ± 25%                 | 0.144                         | 4.30                                   | 2.70                                   |
| HA78D-128180MLF | 18 ± 20%                 | 0.040                         | 8.00                                   | 5.50                                   | 72 ± 25%                 | 0.158                         | 3.90                                   | 2.50                                   |
| HA78D-128220MLF | 22 ± 20%                 | 0.048                         | 6.80                                   | 5.20                                   | 88 ± 25%                 | 0.190                         | 3.50                                   | 2.20                                   |
| HA78D-128270MLF | 27 ± 20%                 | 0.060                         | 6.50                                   | 4.70                                   | 108 ± 25%                | 0.240                         | 3.40                                   | 2.00                                   |
| HA78D-128330MLF | 33 ± 20%                 | 0.075                         | 5.60                                   | 4.20                                   | 132 ± 25%                | 0.300                         | 3.10                                   | 1.70                                   |
| HA78D-128390MLF | 39 ± 20%                 | 0.080                         | 5.50                                   | 3.60                                   | 156 ± 25%                | 0.320                         | 2.80                                   | 1.60                                   |
| HA78D-128470MLF | 47 ± 20%                 | 0.090                         | 5.20                                   | 3.00                                   | 188 ± 25%                | 0.360                         | 2.60                                   | 1.50                                   |
| HA78D-128560MLF | 56 ± 20%                 | 0.095                         | 4.50                                   | 2.80                                   | 224 ± 25%                | 0.380                         | 2.40                                   | 1.40                                   |
| HA78D-128680MLF | 68 ± 20%                 | 0.105                         | 4.10                                   | 2.60                                   | 272 ± 25%                | 0.420                         | 2.10                                   | 1.30                                   |
| HA78D-128820MLF | 82 ± 20%                 | 0.140                         | 3.80                                   | 2.30                                   | 328 ± 25%                | 0.560                         | 1.90                                   | 1.20                                   |
| HA78D-128101MLF | 100 ± 20%                | 0.150                         | 3.40                                   | 2.00                                   | 400 ± 25%                | 0.600                         | 1.70                                   | 1.10                                   |
| HA78D-128121KLF | 120 ± 10%                | 0.205                         | 3.20                                   | 1.90                                   | 480 ± 25%                | 0.820                         | 1.60                                   | 1.00                                   |
| HA78D-128151KLF | 150 ± 10%                | 0.230                         | 2.80                                   | 1.80                                   | 600 ± 25%                | 0.920                         | 1.40                                   | 0.89                                   |
| HA78D-128181KLF | 180 ± 10%                | 0.255                         | 2.50                                   | 1.70                                   | 720 ± 25%                | 1.02                          | 1.30                                   | 0.84                                   |
| HA78D-128221KLF | 220 ± 10%                | 0.345                         | 2.30                                   | 1.60                                   | 880 ± 25%                | 1.38                          | 1.10                                   | 0.75                                   |
| HA78D-128271KLF | 270 ± 10%                | 0.450                         | 2.10                                   | 1.50                                   | 1080 ± 25%               | 1.80                          | 1.00                                   | 0.71                                   |
| HA78D-128331KLF | 330 ± 10%                | 0.510                         | 1.90                                   | 1.30                                   | 1320 ± 25%               | 2.04                          | 0.92                                   | 0.62                                   |
| HA78D-128391KLF | 390 ± 10%                | 0.560                         | 1.70                                   | 1.10                                   | 1560 ± 25%               | 2.24                          | 0.84                                   | 0.53                                   |
| HA78D-128471KLF | 470 ± 10%                | 0.765                         | 1.60                                   | 0.87                                   | 1880 ± 25%               | 3.06                          | 0.80                                   | 0.43                                   |
| HA78D-128561KLF | 560 ± 10%                | 0.845                         | 1.50                                   | 0.83                                   | 2240 ± 25%               | 3.38                          | 0.73                                   | 0.40                                   |
| HA78D-128681KLF | 680 ± 10%                | 1.145                         | 1.30                                   | 0.76                                   | 2720 ± 25%               | 4.58                          | 0.63                                   | 0.36                                   |
| HA78D-128821KLF | 820 ± 10%                | 1.275                         | 1.20                                   | 0.69                                   | 4000 ± 30%               | 5.10                          | 0.58                                   | 0.33                                   |
| HA78D-128102KLF | 1000 ± 10%               | 1.415                         | 1.10                                   | 0.60                                   | 4800 ± 30%               | 5.66                          | 0.56                                   | 0.30                                   |

#### General Note

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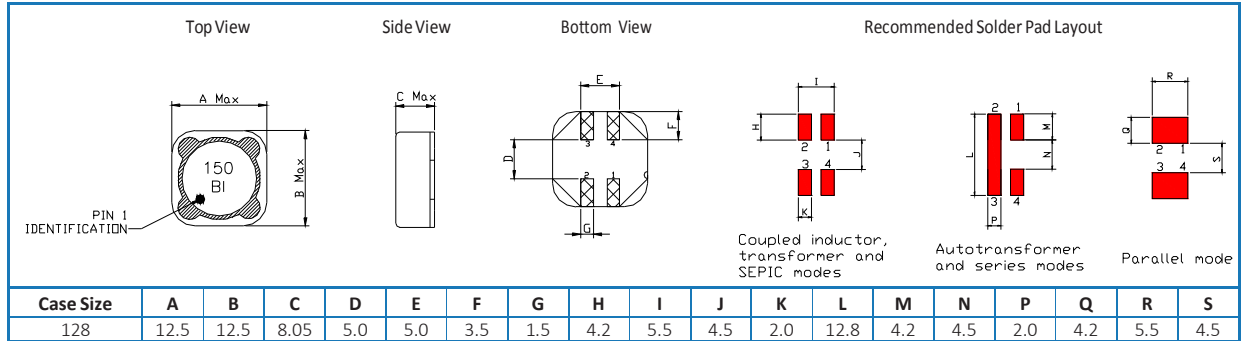
# Shielded Surface Mount Coupled Inductors



## MODELS HA78D-128XXXXLF

- Notes: (1) Inductance is measured at 100 kHz, 0.1Vrms without DC current.  
 (2) DCR for 128 series is of Max. value.  
 (3)  $I_{sat}$  is the saturation current at which inductance rolls off approximately 30% from its initial (zero DC) value.  
 (4)  $I_{rms}$  is the approximate current at which  $\Delta T = 40^{\circ}C$ .

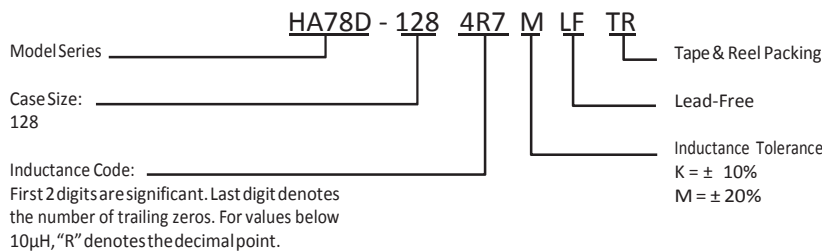
## Outline Dimensions (mm)



## Packaging

|           |                        |                         |                 |
|-----------|------------------------|-------------------------|-----------------|
| Standard: | Embossed Tape and Reel |                         |                 |
|           | Reel:                  | Diameter:               | = 13" (330.2mm) |
|           |                        | Capacity: Case size 128 | = 500 Units     |

## Ordering Information



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