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## HI-REL QPL INDUCTORS & MAGNETICS FOR MILITARY & SPACE APPLICATIONS



**ESTABLISHED IN 1963**



**IN-HOUSE TESTING**



**MILITARY EXPERTS**

### **MIL-PRF-83446**

- first with 0603/0805

### **MIL-PRF-27**

- first with Level T

### **MIL-PRF-39010**

- now Level R & two ER SMT series

### **MIL-PRF-15305**

- now 18 MS approvals

### **CUSTOM DESIGNS**

- per MIL-STD-981

### **IN-HOUSE LAB**

- testing & upscreening



ISO 9001-2000



ISO 13485



AS 9100

[www.gowanda.com](http://www.gowanda.com)

# High Reliability, Qualified Product List Inductors for Demanding Applications

Gowanda is a leader in the design and production of robust inductors for the military/aerospace, space and defense industries. The company's success is derived from decades of magnetics expertise, focused attention on the technical requirements of such demanding applications and collaborative relationships with customers' design engineering teams. Numerous inductor series have achieved Qualified Product List status as a result of Gowanda's commitment to the process controls, testing and investment required. Gowanda's in-house environmental lab exemplifies this commitment. The company was the first in the industry to introduce Established Reliability (ER) inductors with Surface Mount configurations for MIL-PRF-39010.



## Featuring:

- Operating temperatures from -55°C to +125°C; up to +220°C available upon request
- Environmental testing including thermal shock, thermal cycling, life test, mechanical shock, vibration and radiographic
- Lot & date code traceability
- Three Class 100,000 cleanrooms; easily upgraded to Class 10,000
- No design obsolescence
- Application-specific designs that will meet your stringent electrical and mechanical requirements
- Micro/Ultra-miniature components for hybrid applications
- Molded components have lead (Pb) bearing terminations standard; select series offer gold terminations standard and Pb solder as an option
- Ruggedization of components designed specifically to withstand the rigors of the military, space and aerospace markets




## RF SURFACE MOUNT


### Ceramic Wirewound, Open Construction, MIL-PRF-83446

| Series   |   | Military Number | Inductance $\mu\text{H}$ | DCR Ohms     | Current Rating DC mA |
|----------|---|-----------------|--------------------------|--------------|----------------------|
| MLRF0603 |    | M83446/36       | 0.0018 to 0.2700         | 0.07 to 1.78 | 195 to 1000          |
| MLRF0805 |  | M83446/37       | 0.0022 to 2.2            | 0.08 to 5.0  | 140 to 1000          |


### Wirewound, Molded, Level M Qualified, MIL-PRF-39010, Established Reliability

| Series |   | Military Number                     | Inductance $\mu\text{H}$ | DCR Ohms   | Current Rating DC mA |
|--------|---|-------------------------------------|--------------------------|------------|----------------------|
| ER3013 |  | M39010/19<br>M39010/20<br>M39010/21 | 0.10 to 1000             | 0.08 to 72 | 28 to 1380           |



### Wirewound, Shielded, Molded, Level M Qualified, MIL-PRF-39010, Established Reliability

| Series  |   | Military Number        | Inductance $\mu\text{H}$  | DCR Ohms                 | Current Rating DC mA     |
|---------|---|------------------------|---------------------------|--------------------------|--------------------------|
| ER5025S |  | M39010/17<br>M39010/18 | 0.10 to 12<br>15 to 10000 | 0.025 to 2<br>0.8 to 139 | 250 to 2245<br>30 to 395 |









### Epoxy Coated, MIL-PRF-83446

| Series   |   | Military Number | Inductance $\mu\text{H}$ | DCR Ohms     | Current Rating DC mA |
|----------|---|-----------------|--------------------------|--------------|----------------------|
| MLRF1010 |  | M83446/4        | 0.010 to 27              | 0.06 to 6.90 | 120 to 1270          |


### Wirewound, Molded, MIL-PRF-83446

| Series   |   | Military Number                     | Inductance $\mu\text{H}$ | DCR Ohms   | Current Rating DC mA |
|----------|---|-------------------------------------|--------------------------|------------|----------------------|
| MLRF1812 |  | M83446/39                           | 0.010 to 1000            | 0.10 to 60 | 55 to 1230           |
| MLRF3013 |  | M83446/31<br>M83446/32<br>M83446/33 | 0.10 to 1000             | 0.08 to 72 | 28 to 1380           |




## Wirewound, Molded, MIL-PRF-15305

| Series  |  | Military Number               | Inductance $\mu$ H | DCR Ohms       | Current Rating DC mA |
|---------|--|-------------------------------|--------------------|----------------|----------------------|
| MLRF10M |   | MS75083<br>MS75084<br>MS75085 | 0.10 to 1000       | 0.08 to 72     | 28 to 1350           |
| MLRF15M |   | MS18130<br>MS14046<br>MS90538 | 0.15 to 240        | 0.03 to 7.80   | 101 to 2450          |
| MLRF18M |   | MS75008<br>MS75101            | 0.15 to 27         | 0.03 to 2.75   | 205 to 3000          |
| MLRF19M |   | MS90539                       | 270 to 1000        | 8.2 to 16.5    | 78 to 110            |
| MLRF21M |   | MS90452<br>MS14052            | 0.47 to 39         | 0.06 to 2.0    | 224 to 1970          |
| MLRF22M |   | MS90540                       | 1100 to 3600       | 21 to 40       | 57 to 78             |
| MLRF24M |   | MS90541                       | 3900 to 10000      | 44 to 72       | 47 to 61             |
| MLRF28M |  | MS75103<br>MS91189            | 1.2 to 120         | 0.075 to 4.150 | 195 to 2400          |


## Wirewound, Shielded, Molded, MIL-PRF-15305

| Series  |   | Military Number               | Inductance $\mu$ H | DCR Ohms      | Current Rating DC mA |
|---------|---|-------------------------------|--------------------|---------------|----------------------|
| MLRF17S |  | MS75087<br>MS75088<br>MS75089 | 0.10 to 1000       | 0.025 to 17.5 | 70 to 1790           |

## Wirewound, Molded, Level R Qualified, MIL-PRF-39010, Established Reliability




| Series |   | Military Number                        | Inductance $\mu$ H | DCR Ohms     | Current Rating DC mA |
|--------|---|--|--------------------|--------------|----------------------|
| ER10M  |  | MS39010/08<br>MS39010/09<br>MS39010/10 | 0.10 to 1000       | 0.08 to 72   | 28 to 1350           |
| ER15M  |  | MS39010/06<br>MS39010/07               | 0.150 to 240       | 0.03 to 7.80 | 101 to 2450          |
| ER18M  |  | MS39010/04<br>MS39010/05               | 0.150 to 27.0      | 0.03 to 2.75 | 205 to 2900          |

## Wirewound, Shielded, Molded, Level R Qualified, MIL-PRF-39010, Established Reliability




| Series |   | Military Number                        | Inductance $\mu$ H | DCR Ohms       | Current Rating DC mA |
|--------|---|--|--------------------|----------------|----------------------|
| ER17S  |  | MS39010/01<br>MS39010/02<br>MS39010/03 | 0.10 to 1000       | 0.025 to 17.50 | 70 to 1790           |

## POWER SURFACE MOUNT

### Wirewound, Molded, MIL-PRF-27



| Series  |   | Military Number | Inductance $\mu\text{H}$ | DCR Ohms       | Current Rating DC mA |
|---------|---|-----------------|--------------------------|----------------|----------------------|
| MLP1812 |  | M27/368         | 1.0 to 330               | 0.113 to 15.24 | 90 to 1050           |
| MLP5025 |  | M27/367         | 0.22 to 22000            | 0.008 to 160   | 50 to 7000           |
| MLP8527 |  | M27/370         | 1.0 to 18000             | 0.009 to 40    | 90 to 6270           |

### Wirewound, Molded, Level T Qualified, MIL-PRF-27

| Series        |   | Military Number | Inductance $\mu\text{H}$ | DCR Ohms       | Current Rating DC mA |
|---------------|---|-----------------|--------------------------|----------------|----------------------|
| MLP1812LevelT |  | M27/368         | 1.0 to 330               | 0.113 to 15.24 | 90 to 1050           |
| MLP5025LevelT |  | M27/367         | 0.22 to 22000            | 0.008 to 160   | 50 to 7000           |
| MLP8527LevelT |  | M27/370         | 1.0 to 18000             | 0.009 to 40    | 90 to 6270           |

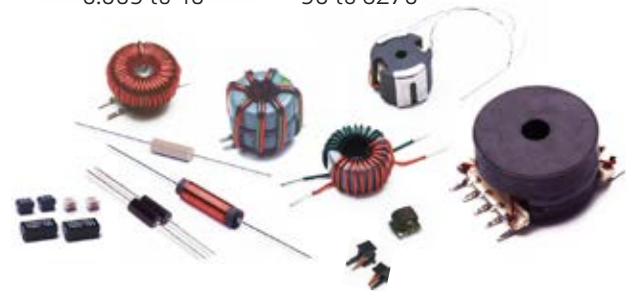
## POWER THRU HOLE

### Wirewound, High Current, Molded, MIL-PRF-27

| Series |  | Military Number | Inductance $\mu\text{H}$ | DCR Ohms    | Current Rating DC mA |
|--------|--|-----------------|--------------------------|-------------|----------------------|
| MLP22  |  | M27/371         | 0.22 to 3900             | 0.008 to 33 | 110 to 7000          |
| MLP24  |  | M27/369         | 1.0 to 18000             | 0.009 to 40 | 90 to 6270           |

## Your Source for Application-Specific and Custom Magnetics

For over 50 years, Gowanda Electronics has been providing high quality, high performance component solutions addressing the needs of OEMs in the industrial, communications, military, space, aerospace, medical, and power conversion industries. Gowanda's state-of-the-art 40,000 square foot worldwide headquarters, located in Gowanda, New York, houses administration, engineering, sales, product development and a portion of manufacturing. The relentless pursuit of quality and excellence has permitted Gowanda Electronics to become a leader in the industry. Our knowledgeable engineers and customer service staff are eager to help find the solution that best suits your needs. Call us at +1-716-532-2234 or visit our comprehensive website at [www.gowanda.com](http://www.gowanda.com) to find the product or capability that will help catalyze your project's success.



### Gowanda Components Group

GCG designs and manufactures reliable, robust, high-performance electronic components and subassemblies for use in demanding applications in military, space, medical and communication systems around the world. GCG has a unique combination of product breadth, custom-design capabilities, in-house testing and multiple facilities, all located in the United States. Vertical integration helps GCG to streamline its operations and control its own destiny, thereby reducing time to market for its customers.



MAGNETICS DIVISION






FILTERS DIVISION





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