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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

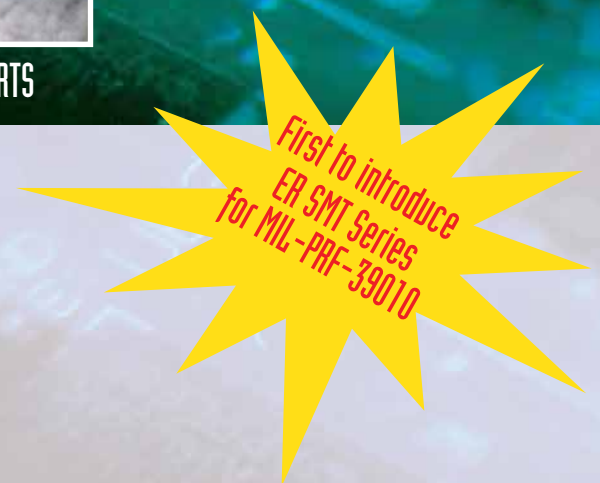
- now 18 MS approvals

### CUSTOM DESIGNS

- per MIL-STD-981

### IN-HOUSE LAB

- testing & upscreening



[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
- Multiple 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


### M83446 Ceramic Chip Inductor

Series		Military Number	Inductance $\mu$ 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


### M39010 Level-M Molded Unshielded Established Reliability Inductor

Series		Military Number	Inductance $\mu$ H	DCR Ohms	Current Rating DC mA
ER3013		M39010/19 M39010/20 M39010/21	0.10 to 1000	0.08 to 72	28 to 1380



### M39010 Level-M Molded Shielded Established Reliability Inductor

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









### M83446 Epoxy Coated Chip Inductor

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


### M83446 Molded Unshielded Inductor

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




**M15305 Molded Unshielded Inductor**

Series		Military Number	Inductance $\mu\text{H}$	DCR Ohms	Current Rating DC mA
MLRF10M		MS75083 MS75084 MS75085	0.10 to 1000	0.08 to 72	28 to 1350
MLRF15M		MS18130 MS14046 MS90538	0.15 to 240	0.03 to 7.80	101 to 2450
MLRF18M		MS75008 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		MS90542 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 MS91189	1.2 to 120	0.075 to 4.150	195 to 2400


**M15305 Molded Shielded Inductor**

Series		Military Number	Inductance $\mu\text{H}$	DCR Ohms	Current Rating DC mA
MLRF17S		MS75087 MS75088 MS75089	0.10 to 1000	0.025 to 17.5	70 to 1790

**M39010 Level-R Molded Unshielded Established Reliability Inductor**




Series		Military Number	Inductance $\mu\text{H}$	DCR Ohms	Current Rating DC mA
ER10M		M39010/08 M39010/09 M39010/10	0.10 to 1000	0.08 to 72	28 to 1350
ER15M		M39010/06 M39010/07	0.150 to 240	0.03 to 7.80	101 to 2450
ER18M		M39010/04 M39010/05	0.150 to 27.0	0.03 to 2.75	205 to 2900

**M39010 Level-R Molded Shielded Established Reliability Inductor**

Series		Military Number	Inductance $\mu\text{H}$	DCR Ohms	Current Rating DC mA
ER17S		M39010/01 M39010/02 M39010/03	0.10 to 1000	0.025 to 17.50	70 to 1790



## POWER SURFACE MOUNT

### M27 Level-T Molded Unshielded Inductor

Series		Military Number	Inductance $\mu$ 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

## POWER THRU HOLE

### M27 Molded High Current Inductor

Series		Military Number	Inductance $\mu$ 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 (now an affiliate of GCG) 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 sq.ft. facility, 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, email us at sales@gowanda.com, 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, aerospace, medical and communication systems around the world. With particular expertise in inductors, magnetics, resistors and filters, GCG has a unique combination of product breadth, custom-design capabilities, proprietary equipment, in-house environmental testing and multiple facilities, all located in the United States. With over 225,000 sq.ft. of manufacturing and engineering space spread out over 8 locations across the country, GCG is disaster-plan qualified. Nearly 8,000 sq.ft. of machining space, including in-house transfer molding capability, provides quick turnaround of prototypes. This combined with other aspects of vertical integration helps GCG to streamline its operations and manage process flow, thereby reducing time to market for its customers.

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COMPONENTS  
GROUP

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