



### FEATURES



- Molded inductor with extreme small size
- Saturation current up to 7.9A
- Robust and magnetic shielded construction
- Surface mount device
- Operating temperature -40°C to 125°C (including self-heating)

### APPLICATIONS

- DC/DC converters
- High current and high switching frequency power supply application
- Mobile devices and consumer portable devices

### ELECTRICAL SPECIFICATIONS

P/N	Inductance ( $\mu$ H) @1MHz/1mA $\pm 20\%$	DCR ( $\Omega$ ) Max	SATURATION CURRENT (A)		RMS CURRENT (A)	
			Typical	Max	Typical	Max
MGV201610R24M-10	0.24	0.021	5.60	5.05	5.00	4.50
MGV201610R33M-10	0.33	0.029	5.00	4.50	4.10	3.69
MGV201610R47M-10	0.47	0.040	4.40	4.00	3.50	3.15
MGV201610R68M-10	0.68	0.049	3.70	3.33	3.40	3.06
MGV2016101R0M-10	1.00	0.069	2.90	2.61	2.60	2.26
MGV2016101R5M-10	1.50	0.129	2.50	2.25	2.00	1.81
MGV2016102R2M-10	2.20	0.150	1.90	1.71	1.70	1.50
MGV201610SR47M-10	0.47	0.030	6.10	5.30	4.50	4.05
MGV201610S1R0M-10	1.00	0.060	3.90	3.30	3.20	3.00
MGV201610S1R5M-10	1.50	0.099	3.40	3.10	2.40	2.20
MGV201610S2R2M-10	2.20	0.140	2.60	2.45	2.20	2.00
MGV252010R22M-10	0.22	0.0125	7.90	7.20	5.90	5.30
MGV252010R33M-10	0.33	0.026	6.10	5.50	4.40	4.00
MGV252010R47M-10	0.47	0.032	4.70	4.20	3.90	3.51
MGV252010R68M-10	0.68	0.044	4.30	3.87	3.40	3.06
MGV2520101R0M-10	1.00	0.054	3.50	3.15	3.00	2.70
MGV2520101R5M-10	1.50	0.091	2.60	2.34	2.50	2.25
MGV2520102R2M-10	2.20	0.119	2.40	2.16	2.30	2.07
MGV2520104R7M-10	4.70	0.262	1.80	1.62	1.36	1.22
MGV252010SR33M-10	0.33	0.022	7.30	6.50	5.60	4.80
MGV252010SR47M-10	0.47	0.029	5.70	5.00	5.20	4.40
MGV252010S1R0M-10	1.00	0.052	4.40	4.00	3.40	3.10
MGV252010S2R2M-10	2.20	0.110	3.30	3.00	2.40	2.10

MGV252012R47M-10	0.47	0.025	5.30	4.95	4.60	4.18
MGV252012R68M-10	0.68	0.035	5.00	4.63	3.70	3.36
MGV2520121R0M-10	1.00	0.049	4.30	3.80	3.50	3.18
MGV2520121R5M-10	1.50	0.077	3.20	2.91	2.50	2.27
MGV2520122R2M-10	2.20	0.098	3.00	2.73	2.27	2.06
MGV2520124R7M-10	4.70	0.235	1.90	1.58	1.55	1.40

MGV252012S1R0M-10	1.00	0.044	4.30	3.80	3.90	3.30
MGV252012S2R2M-10	2.20	0.089	3.50	3.20	2.50	2.20
MGV252012SR47M-10	0.47	0.022	6.80	6.20	5.80	4.90

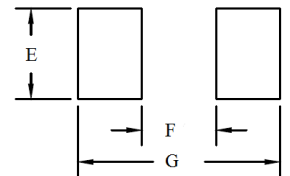
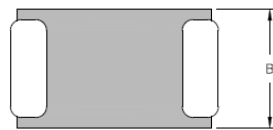
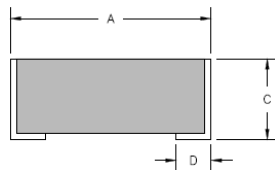
Remark:

1. The saturation current ( $I_{sat}$ ) is the DC current at which the inductance will drop about 30% from its original value without current (at 25°C).
2. The temperature rise current ( $I_{rms}$ ) is the DC current at which the temperature will increase about 40°C from 25°C ambient temperature.

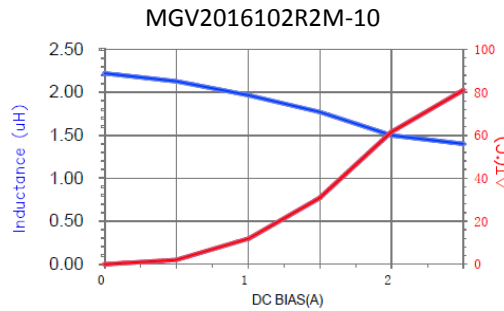
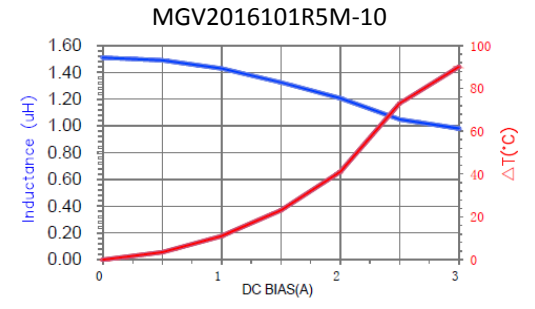
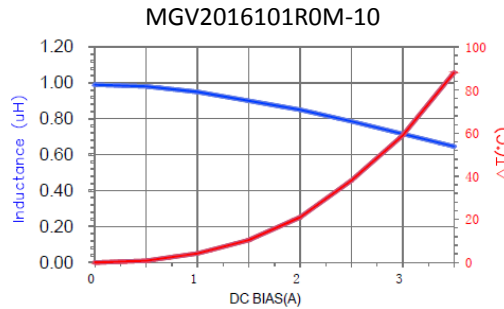
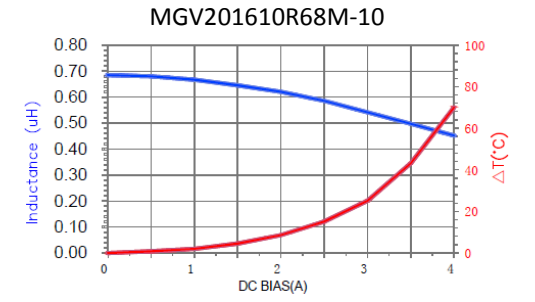
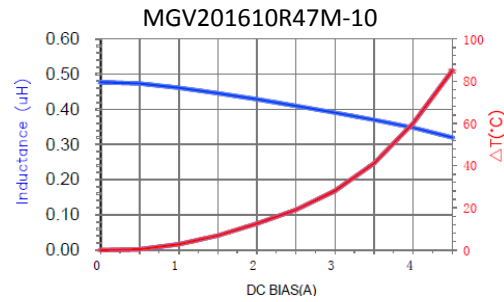
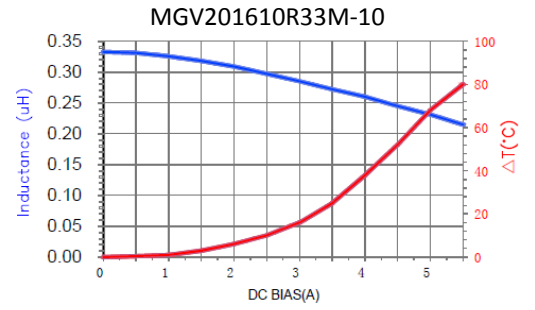
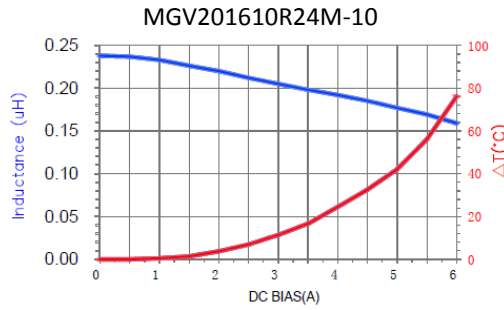
### SHAPES AND DIMENSIONS

Unit:mm

Series	A	B	C	D	E	F	G
MGV2016 MGV2016S	2.00±0.20	1.60±0.20	1.00 Max.	0.50±0.30	1.60	0.90	2.00
MGV252010 MGV252010S	2.50±0.20	2.00±0.20	1.00 Max.	0.60±0.30	2.00	1.20	2.80
MGV252012 MGV252012S	2.50±0.20	2.00±0.20	1.20 Max.	0.60±0.30	2.00	1.20	2.80

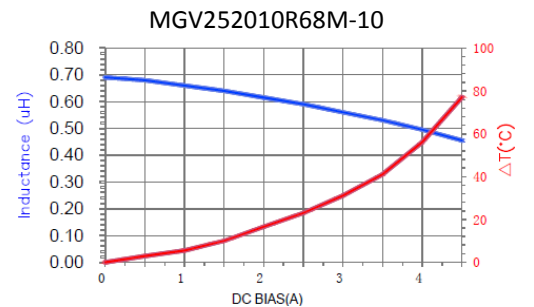
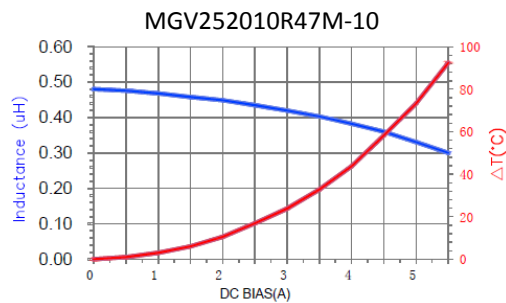
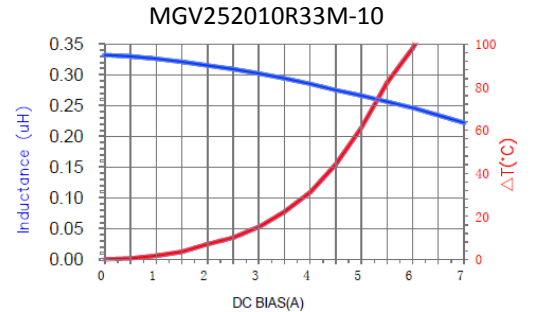
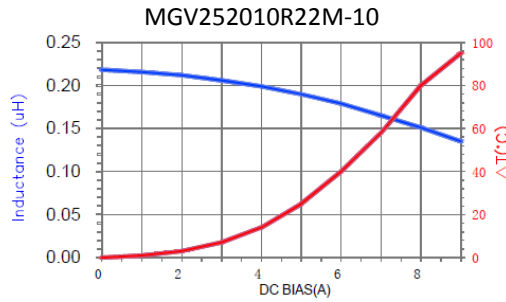
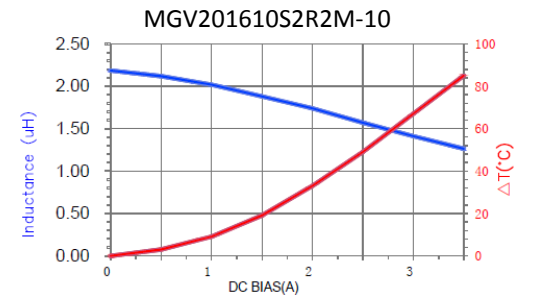
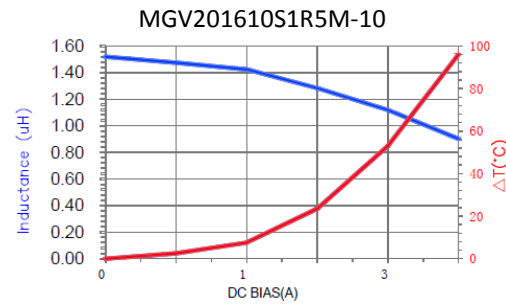
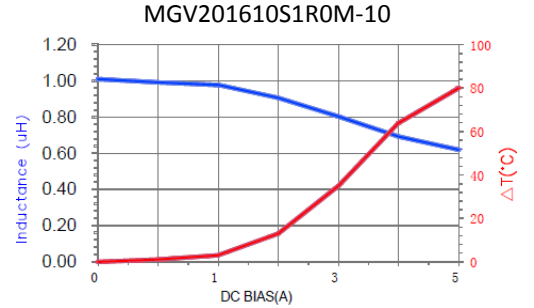
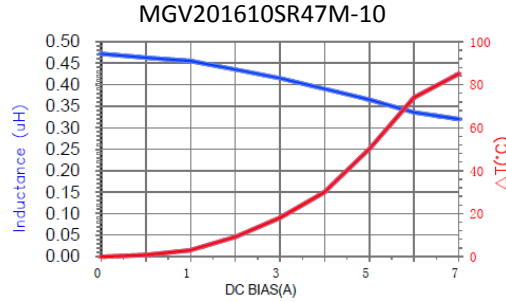


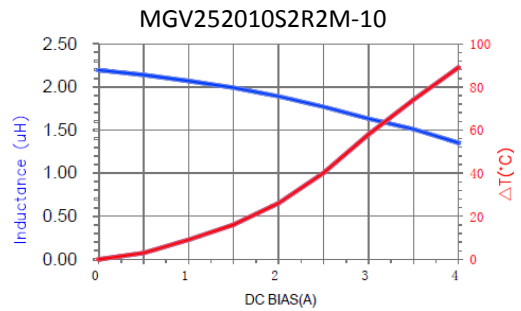
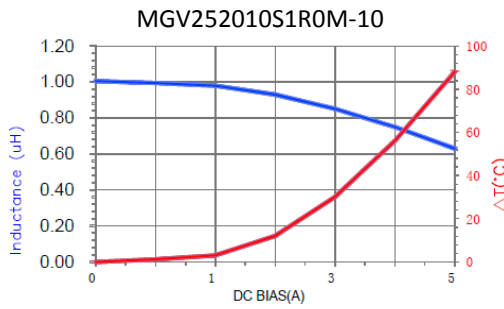
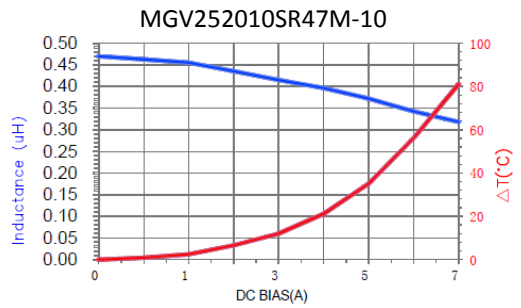
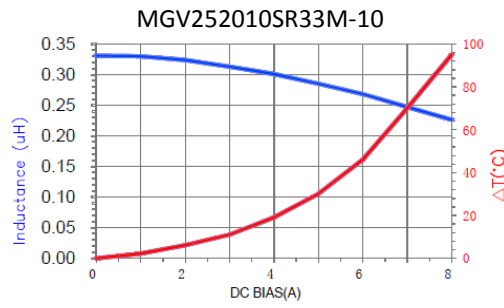
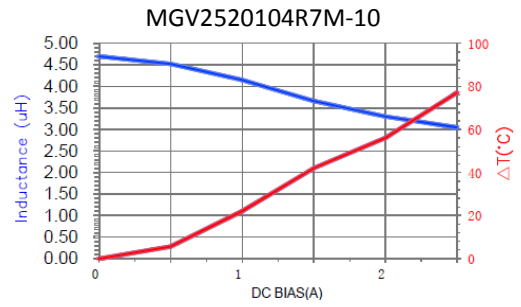
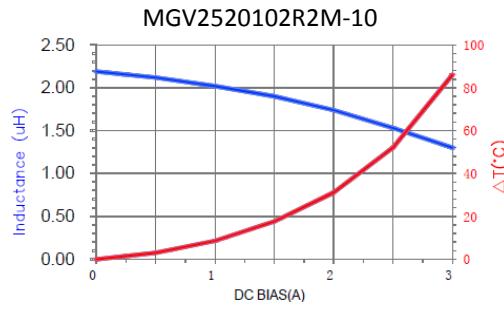
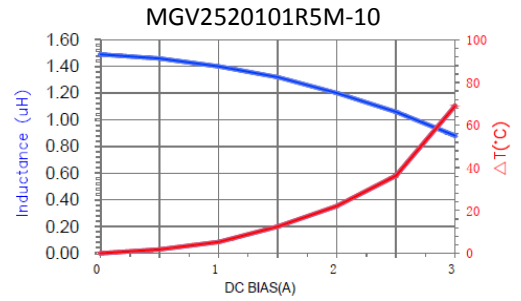
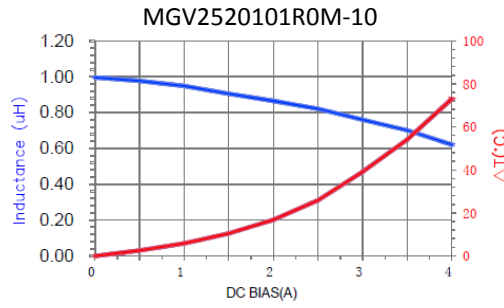
**TYPICAL CHARACTERISTICS**



# Small Size SMD Power Inductor

## MGV2520/2016 Series

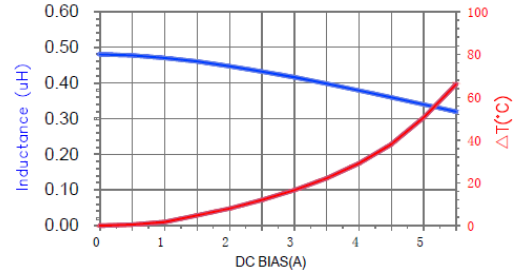




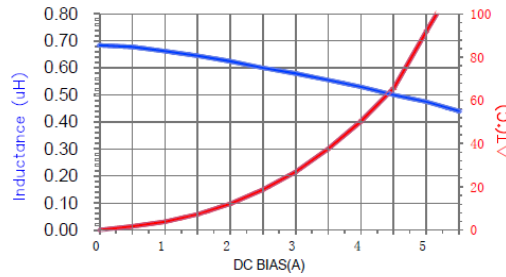
# Small Size SMD Power Inductor

## MGV2520/2016 Series

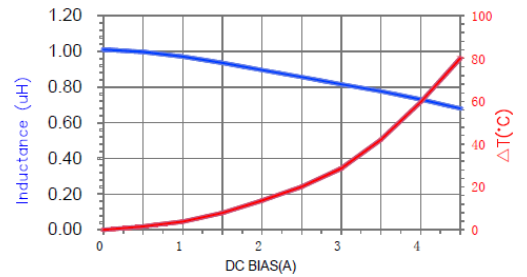
MGV252012R47M-10



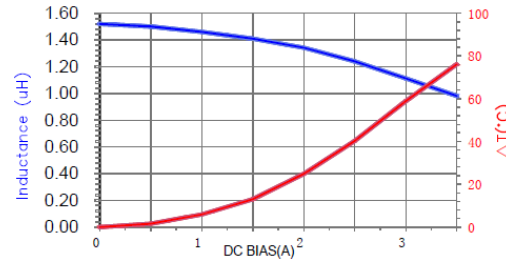
MGV252012R68M-10



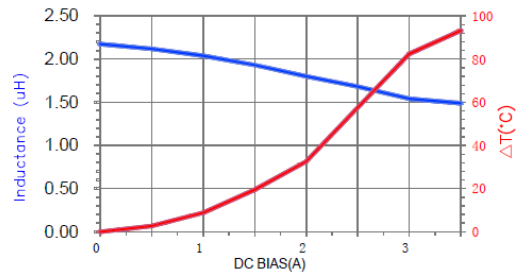
MGV2520121R0M-10



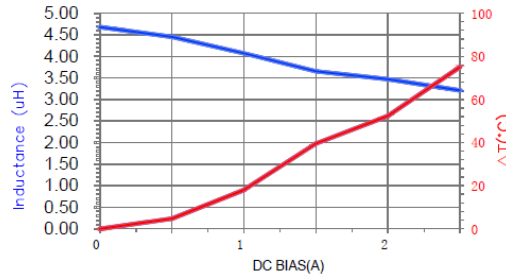
MGV2520121R5M-10



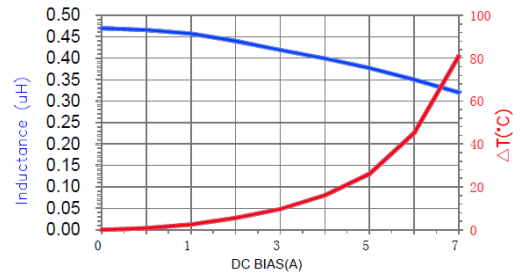
MGV2520122R2M-10

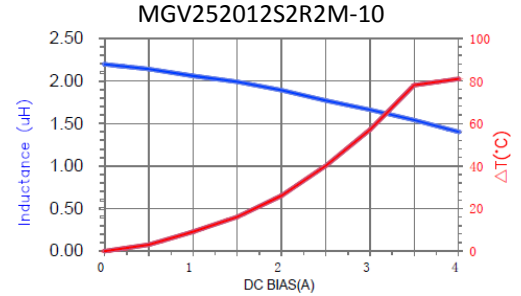
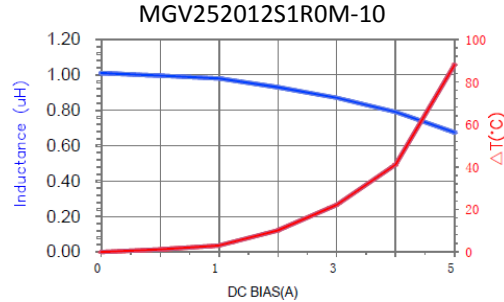


MGV2520124R7M-10



MGV252012SR47M-10





### PART NUMBER SYSTEM EXAMPLE

<b>MGV</b>	<b>201610</b>	<b>R24</b>	<b>M</b>	<b>-</b>	<b>10</b>
Product Series Code	Part Size Code	Inductance Code	Tolerance Code		Standard or Custom (-10 means standard part)

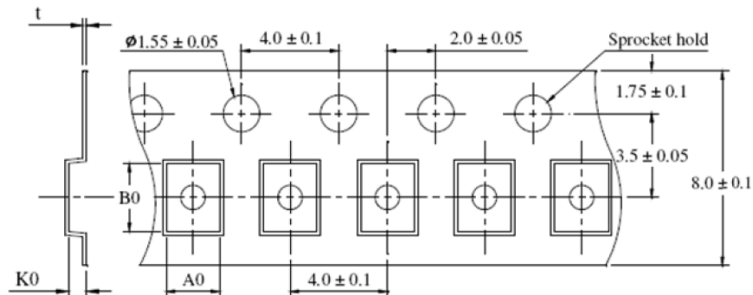
### PACKAGING INFORMATION

Standard Tape and Reel Quantity(PCS)	Box Quantity(PCS)	Reel Size (Inches)
3,000	15,000	13

### TAPING DIMENSIONS

Unit:mm

Series	A0	B0	K0	t
MGV2016	1.82±0.05	2.23±0.05	1.15±0.05	0.22±0.05
MGV2016S				
MGV252010	2.25±0.05	2.80±0.10	1.35±0.10	0.22±0.05
MGV252010S				
MGV252012				
MGV252012S				



USA: +1.423.308.1690  
Europe: +42.0.4885.7511.1  
Asia: +86.757.2563.8860

MCP-DS-Molded Ind 110817

Any information furnished by Laird Technologies, Inc., and/or its affiliate companies (collectively, "Laird") and its agents is believed to be accurate and reliable. All specifications are subject to change without notice. Responsibility for the use and application of Laird materials rests with the end user. Laird and its agents make no warranties as to the fitness, merchantability, suitability or non-infringement of any Laird materials or products for any specific or general uses. Laird shall not be liable for incidental or consequential damages of any kind. All Laird products are sold pursuant to the Laird's Terms and Conditions of sale in effect from time to time, a copy of which will be furnished upon request. © Copyright 2017 Laird Technologies, Inc. All Rights Reserved. Laird, Laird Technologies, the Laird Technologies Logo, and other marks are trademarks or registered trademarks of Laird Technologies, Inc. or an affiliate company thereof. Other product or service names may be the property of third parties. Nothing herein provides a license under any Laird or any third party intellectual property rights. Version A01

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

## Laird Performance Materials:

[MGV2520124R7M-10](#) [MGV252012R47M-10](#) [MGV252012SR47M-10](#) [MGV252012R68M-10](#) [MGV2520121R0M-10](#)  
[MGV252012S1R0M-10](#) [MGV2520122R2M-10](#) [MGV252012S2R2M-10](#) [MGV2016101R5M-10](#) [MGV201610R33M-10](#)  
[MGV2016102R2M-10](#) [MGV201610R24M-10](#) [MGV2016101R0M-10](#) [MGV252010R47M-10](#) [MGV252010R68M-10](#)  
[MGV252010S1R0M-10](#) [MGV252010S2R2M-10](#) [MGV252010SR33M-10](#) [MGV252010SR47M-10](#) [MGV2520101R0M-10](#)  
[MGV2520101R5M-10](#) [MGV2520102R2M-10](#) [MGV2520104R7M-10](#) [MGV252010R22M-10](#) [MGV252010R33M-10](#)  
[MGV201610R47M-10](#) [MGV201610R68M-10](#) [MGV201610S1R0M-10](#) [MGV201610S1R5M-10](#) [MGV201610S2R2M-10](#)  
[MGV201610SR47M-10](#) [MGV2520121R5M-10](#)