

### 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

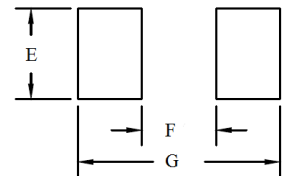
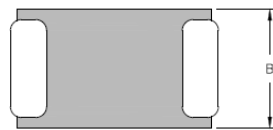
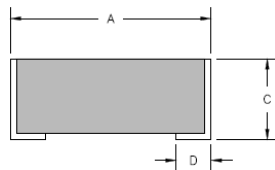
Remark:

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.

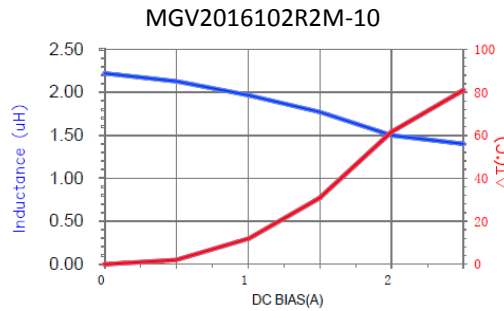
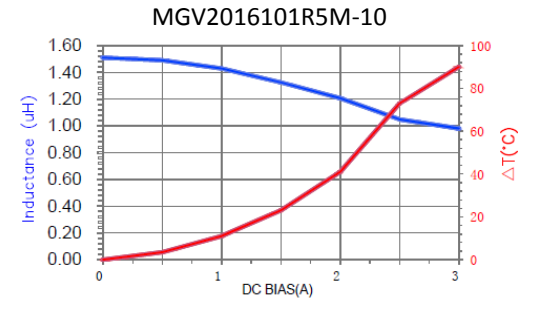
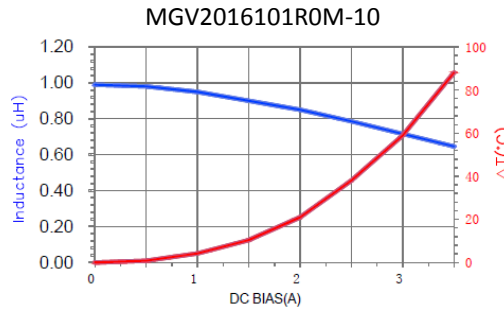
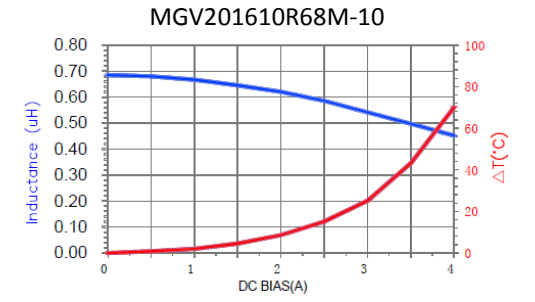
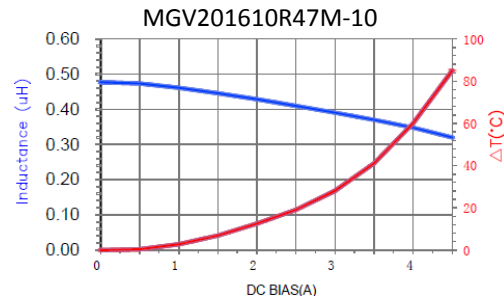
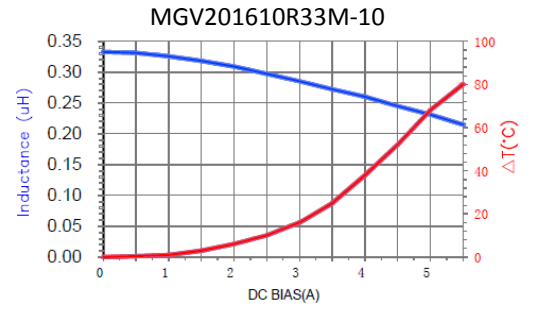
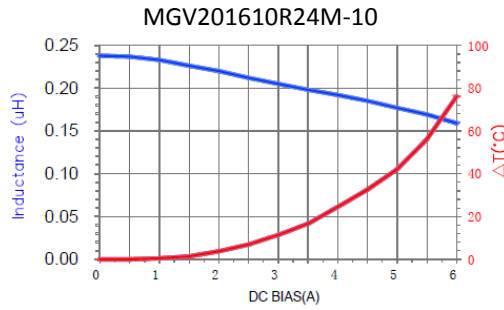
### SHAPES AND DIMENSIONS

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

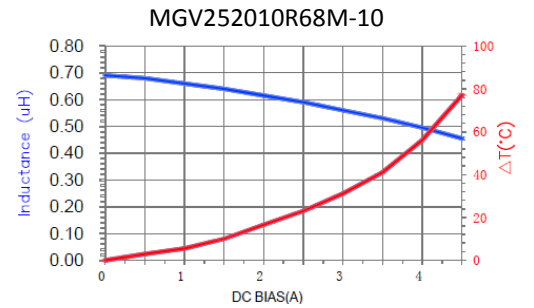
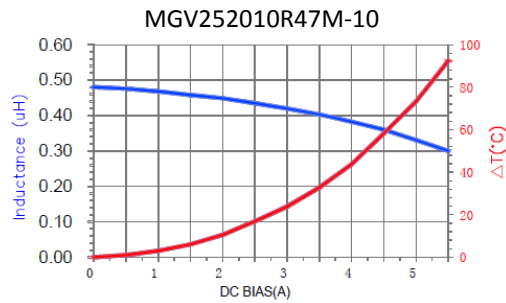
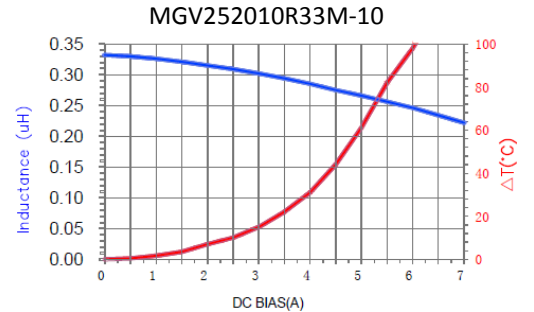
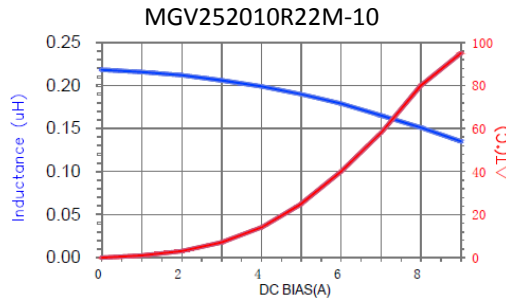
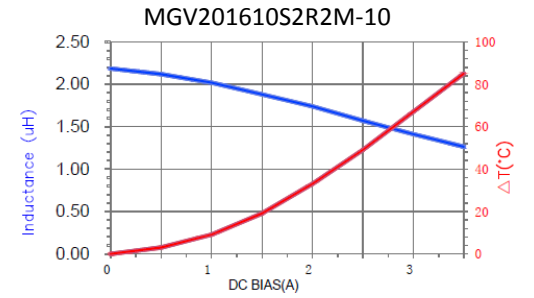
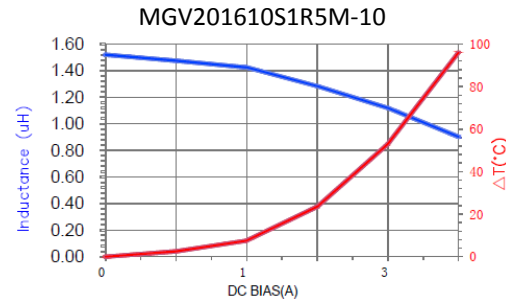
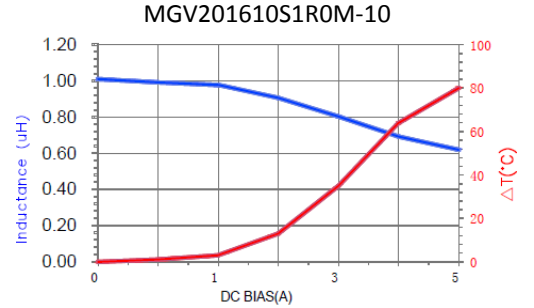
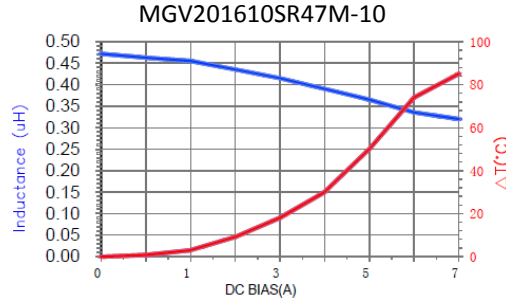


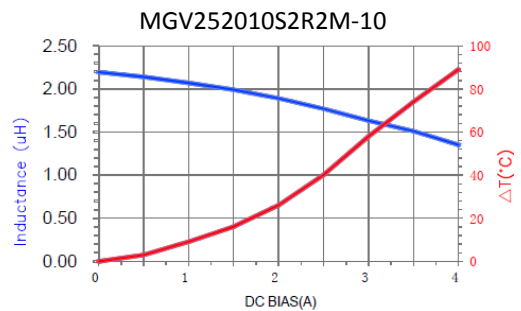
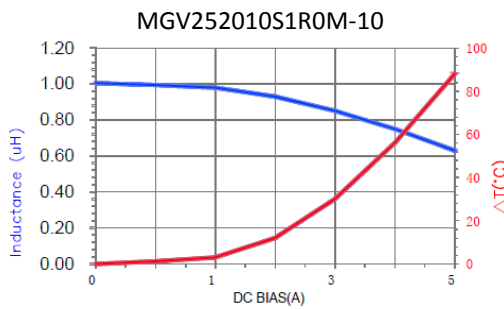
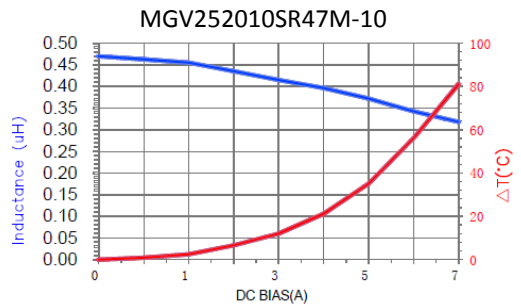
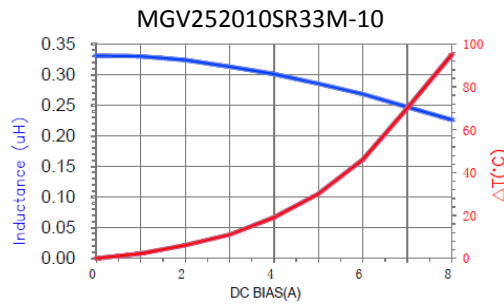
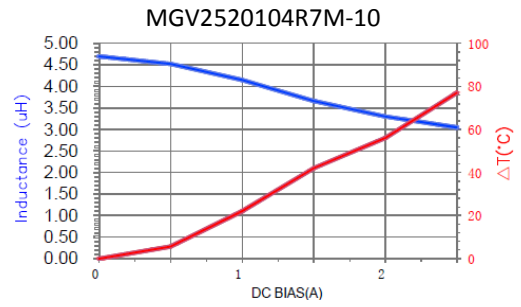
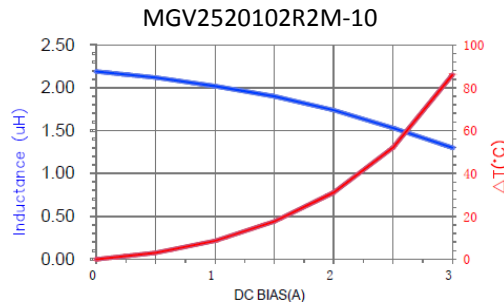
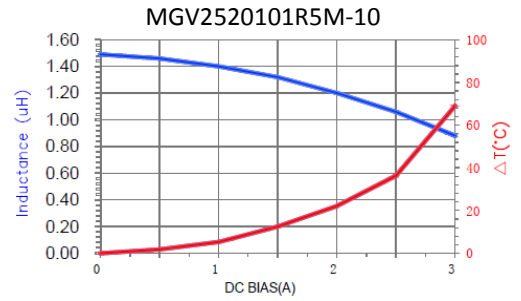
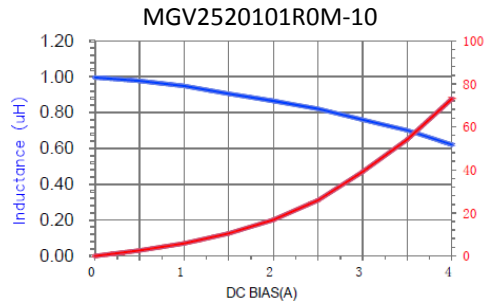
**TYPICAL CHARACTERISTICS**



# Small Size SMD Power Inductor

## MGV2520/2016 Series

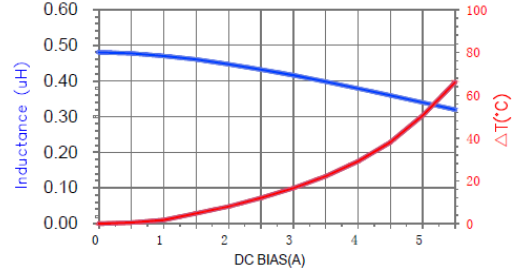




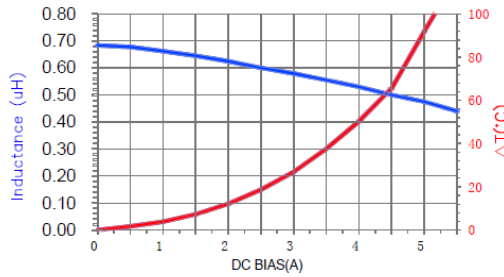
# Small Size SMD Power Inductor

## MGV2520/2016 Series

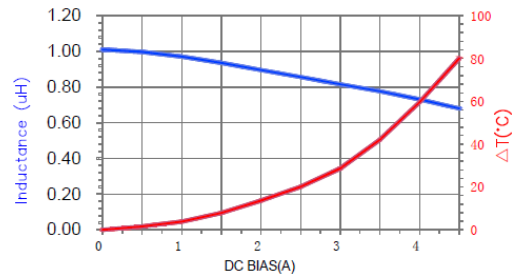
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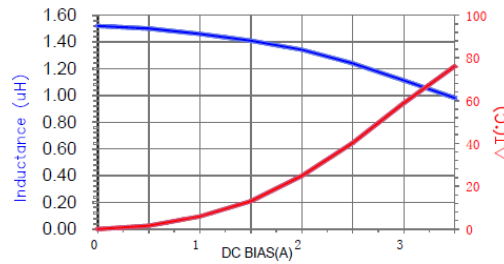
MGV252012R68M-10



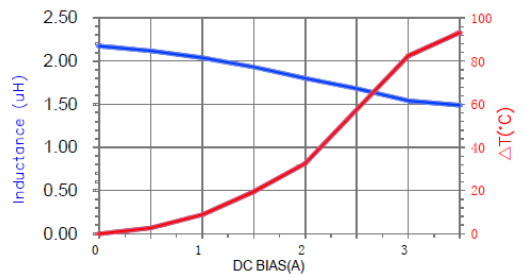
MGV2520121R0M-10



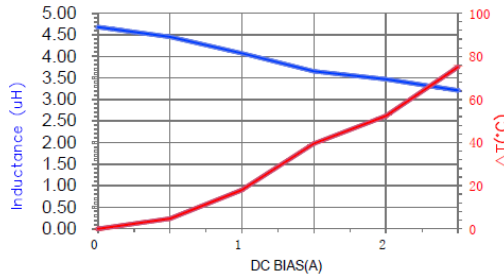
MGV2520121R5M-10



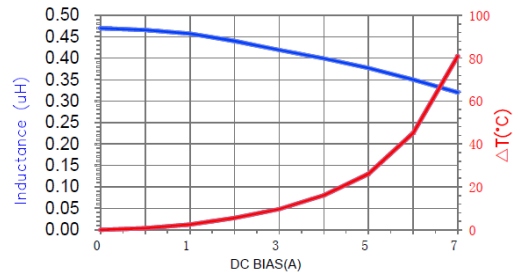
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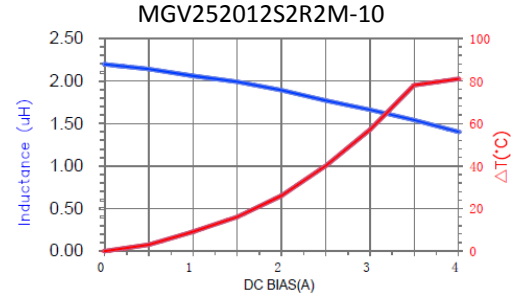
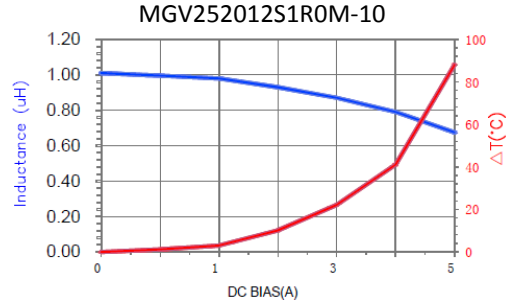


MGV2520124R7M-10



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)

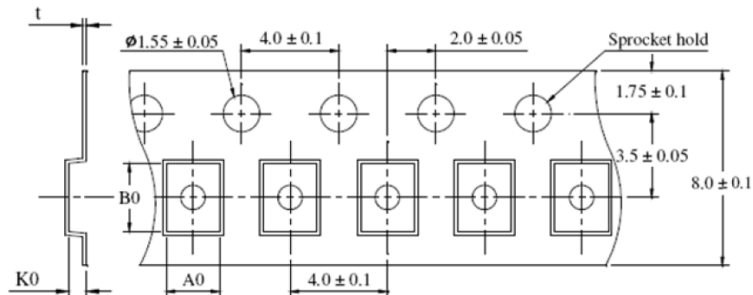
### PACKAGING INFORMATION

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				
MGV252010S	2.25±0.05	2.80±0.10	1.35±0.10	0.22±0.05
MGV252012				
MGV252012S				



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Asia: +86.757.2563.8860

MCP-DS-Molded Ind 110817

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