



FEATURES

- Shielded structure
- Low DCR with high efficiency
- Large current with small size
- High reliability
- AEC-Q200 qualified
- RoHS compliant

APPLICATIONS

- DC-DC power supply and noise filter circuits
- Tablet, notebook PC, workstation and server etc
- Telecom for basestation etc
- Automotive
- LED lighting

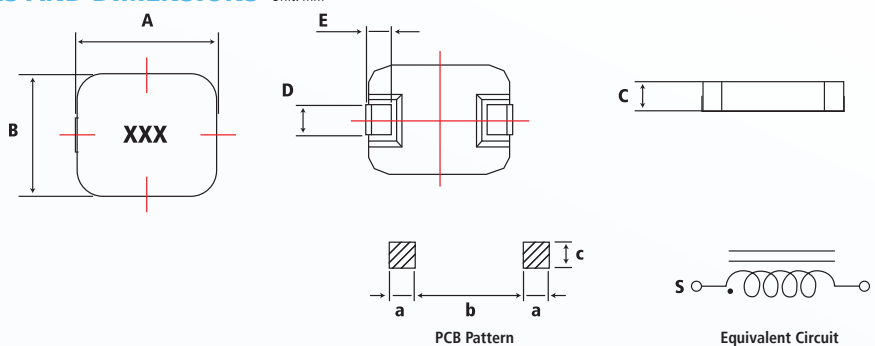
ELECTRICAL CHARACTERISTICS

PART NO.	INDUCTANCE ($\mu\text{H} \pm 20\%$)	DCR (m Ω) MAX	SATURATION CURRENT ⁴ (A) MAX	RMS CURRENT ³ (A) MAX
MGV0402R10M-10	0.10	4.0	22.0	12.0
MGV0402R22M-10	0.22	6.6	12.5	9.0
MGV0402R47M-10	0.47	14.0	9.5	7.0
MGV0402R56M-10	0.56	16.0	8.5	6.5
MGV04021R0M-10	1.00	27.0	7.0	4.5
MGV04021R5M-10	1.50	46.0	6.0	4.0
MGV04022R2M-10	2.20	58.0	5.0	3.0
MGV04023R3M-10	3.30	87.0	4.0	2.5

Remark:

- 1 Tolerance: M: $\pm 20\%$
- 2 Inductance tested at 100KHz, 0.25V
- 3 RMS Current is defined based on temperature rise approximate 40°C without core loss.(ambient temperature 25 $\pm 5^\circ\text{C}$)
- 4 Saturation Current is the DC current at which the inductance drop off approximate 25% from its value without current. (ambient temperature 25 $\pm 5^\circ\text{C}$)
5. Operate temperature range:-40°C~+125°C (including self-temperature rise)
6. Storage temperature range: (packaging conditions): 25 $\pm 5^\circ\text{C}$ and RH 70%(MAX.)

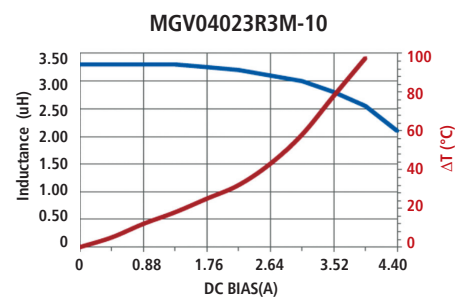
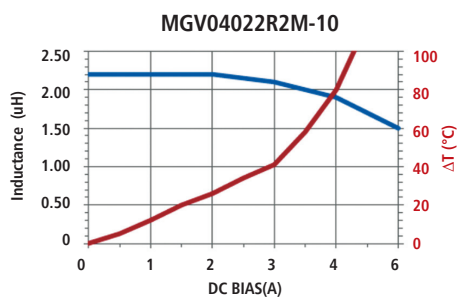
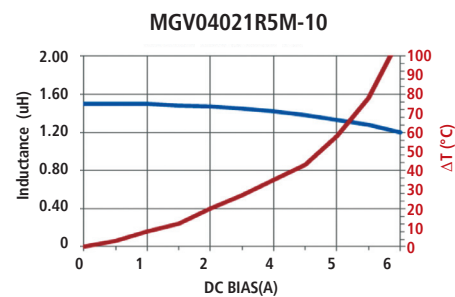
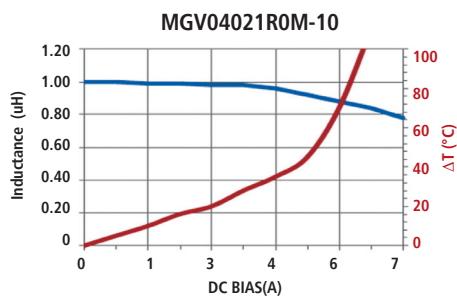
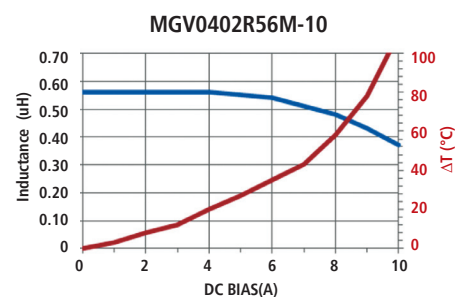
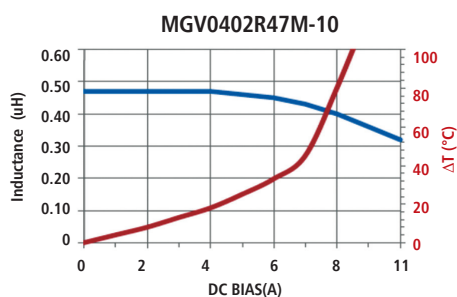
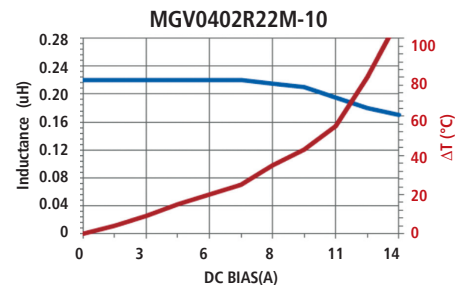
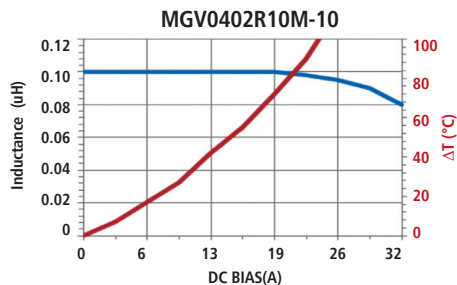
SHAPES AND DIMENSIONS Unit: mm



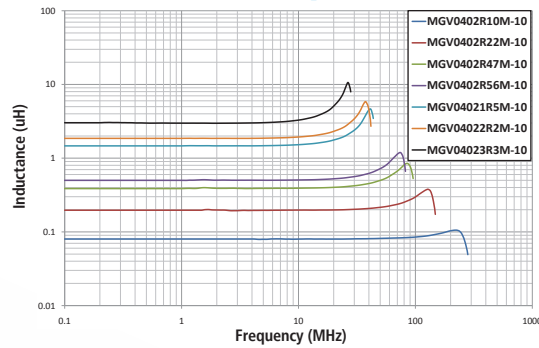
A	B	C	D	E	a	b	c
4.5 ± 0.5	4.1 ± 0.3	2.0 ± 0.3	1.5 ± 0.3	1.0 ± 0.5	1.5 ref	2.5 ref	2.2 ref

USA: +1.866.928.8181
Europe: +49.0.8031.2460.0
Asia: +86.755.2714.1166

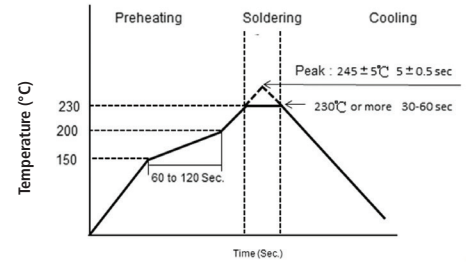
TYPICAL ELECTRICAL CHARACTERISTICS



INDUCTANCE VS FREQUENCY CURVE



TEMPERATURE PROFILE OF REFLOW SOLDERING.



ORDERING INFORMATION

PART NUMBER EXAMPLE

M	G	V	0	4	0	2	1	R	5	M	-	1	0
Product series code			Part size code			Inductance value code (i.e. 1R5: 1.5µH)			Tolerance % (i.e. M: ±20%)		PB free code (i.e. 10: PB free)		

PACKAGING INFORMATION

- Standard Tape and Reel Quantity (PCS) = 3500
- Reel Size = 13 inches

Mouser Electronics

Authorized Distributor

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

[Laird Technologies:](#)

[MGV04021R0M-10](#) [MGV04021R5M-10](#) [MGV04022R2M-10](#) [MGV04023R3M-10](#) [MGV0402R10M-10](#)
[MGV0402R22M-10](#) [MGV0402R47M-10](#) [MGV0402R56M-10](#)