



**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
- LED lighting
- Automotive

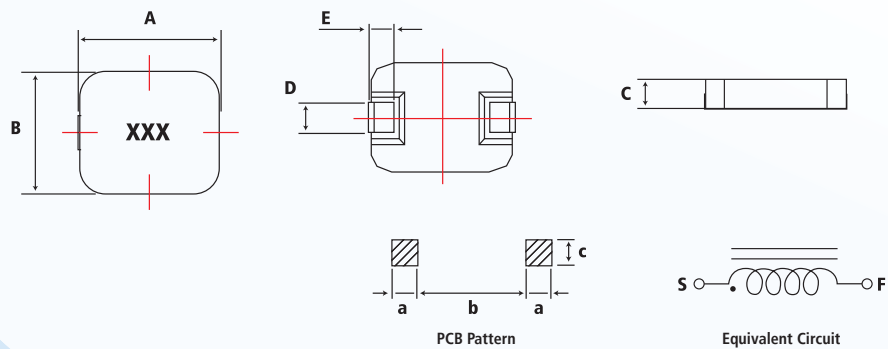
**ELECTRICAL CHARACTERISTICS**

PART NO.	INDUCTANCE ( $\mu\text{H} \pm 20\%$ )	DCR (m $\Omega$ ) MAX	SATURATION CURRENT <sup>4</sup> (A) MAX	RMS CURRENT <sup>3</sup> (A) MAX
MGV0502R10M-10	0.1	3.90	45.00	17.00
MGV0502R22M-10	0.22	5.20	22.00	15.00
MGV0502R33M-10	0.33	8.20	25.00	12.00
MGV0502R47M-10	0.47	9.40	21.00	11.50
MGV0502R68M-10	0.68	12.40	15.00	10.00
MGV05021R0M-10	1.0	20.00	16.00	7.00
MGV05022R2M-10	2.2	50.10	12.50	4.20
MGV05023R3M-10	3.3	85.50	8.50	3.30
MGV05024R7M-10	4.7	116.60	5.00	2.80

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°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°C)
- 5 Operate temperature range:-40°C~+125°C (including self-temperature rise)
- 6 Storage temperature range: (packaging conditions): 25 $\pm$ 5°C and RH 70%(MAX.)

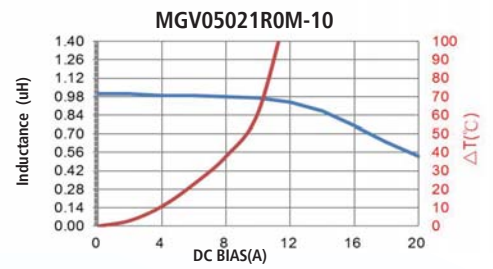
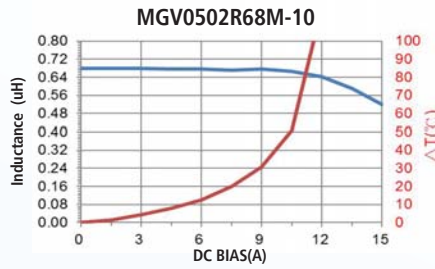
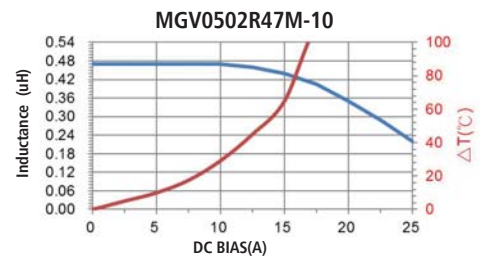
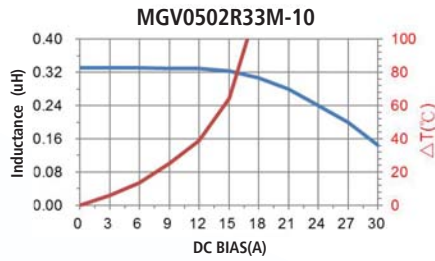
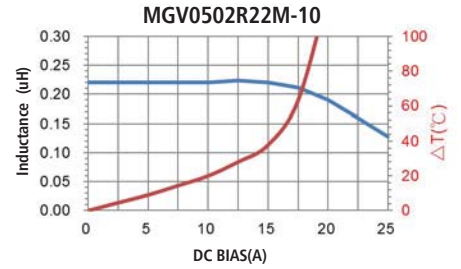
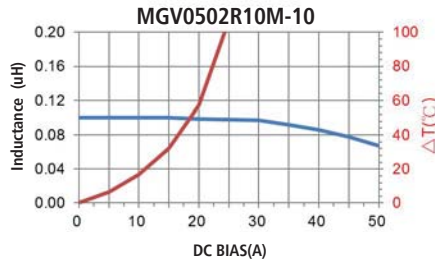
**SHAPES AND DIMENSIONS** Unit: mm



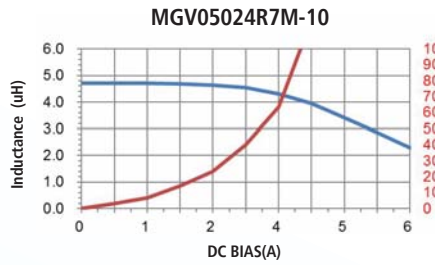
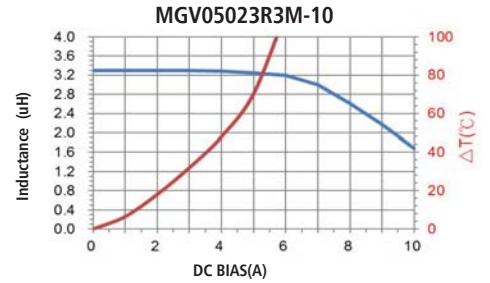
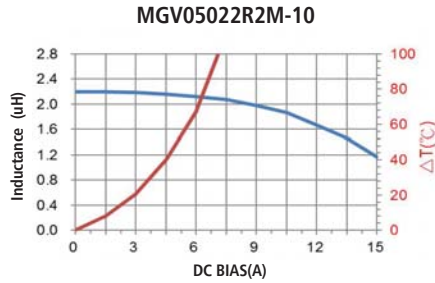
A	B	C	D	E	a	b	c
5.5 $\pm$ 0.5	5.1 $\pm$ 0.3	2.0 $\pm$ 0.3	1.5 $\pm$ 0.3	1.2 $\pm$ 0.5	2.0 ref	3.0 ref	2.5 ref

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

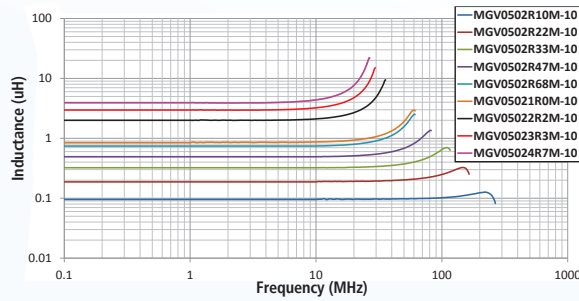
**TYPICAL ELECTRICAL CHARACTERISTICS**



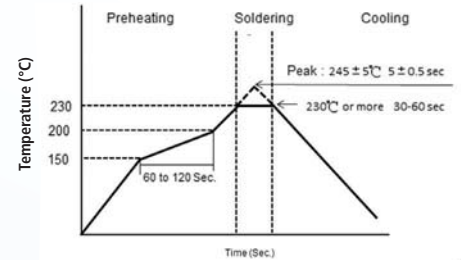
**TYPICAL ELECTRICAL CHARACTERISTICS**



**INDUCTANCE VS FREQUENCY CURVE**



**TEMPERATURE PROFILE OF REFLOW SOLDERING.**



**ORDERING INFORMATION**

**PART NUMBER EXAMPLE**

M	G	V	0	5	0	2	4	R	7	M	-	1	0
Product series code			Part size code			Inductance value code (i.e. 4R7: 4.7uH)			Tolerance % (i.e. M: $\pm 20\%$ • N: $\pm 30\%$ )		PB free code (i.e. 10: PB free)		

**PACKAGING INFORMATION**

- Standard Tape and Reel Quantity (PCS) = 1500
- Reel Size = 13 inches