



**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

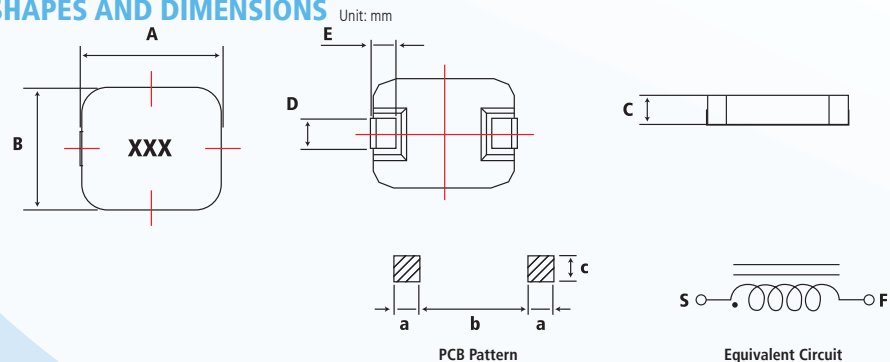
**ELECTRICAL CHARACTERISTICS**

PART NO.	INDUCTANCE ( $\mu\text{H} \pm 20\%$ )	DCR ( $\text{m}\Omega$ ) MAX	SATURATION CURRENT <sup>4</sup> (A) MAX	RMS CURRENT <sup>3</sup> (A) MAX
MGV0503R10M-10	0.10	3.16	27.0	23.0
MGV0503R22M-10	0.22	4.52	21.0	15.5
MGV0503R33M-10	0.33	5.56	19.0	13.7
MGV0503R47M-10	0.47	7.04	16.0	12.2
MGV0503R68M-10	0.68	8.96	13.5	10.2
MGV0503R82M-10	0.82	11.9	13.0	9.3
MGV05031R0M-10	1.00	13.7	12.0	9.2
MGV05031R5M-10	1.50	20.7	11.0	7.2
MGV05032R2M-10	2.20	29.2	10.0	5.8
MGV05033R3M-10	3.30	54.7	8.5	5.0
MGV05034R7M-10	4.7	77.5	8.2	3.5

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°C)
- 4 Saturation Current is the DC current at which the inductance drops off approximately 25% from its value without current. (ambient temperature 25 $\pm$ 5°C)
- 5 Operating temperature range: -40°C~+125°C (including self-temperature rise)
- 6 Storage temperature range (packaging conditions): 25 $\pm$ 5°C and RH 70%(MAX.)

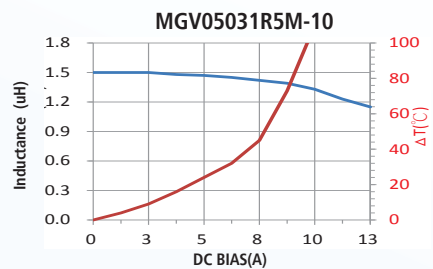
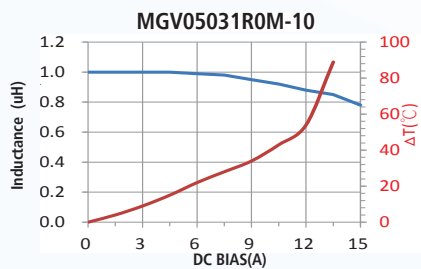
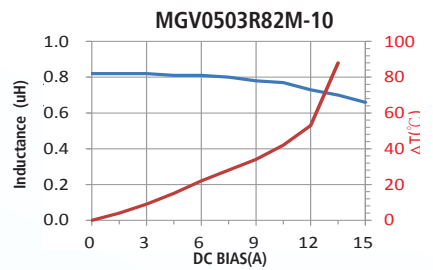
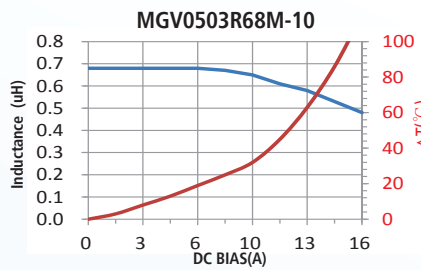
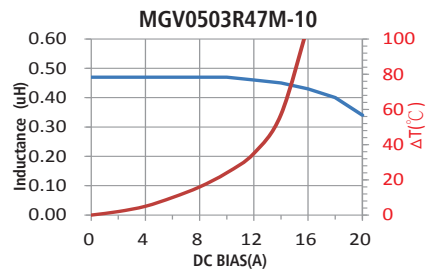
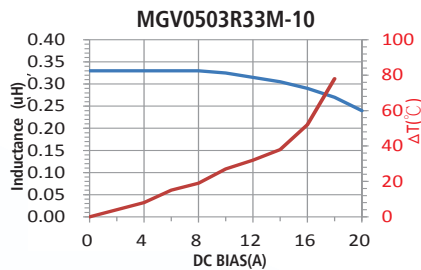
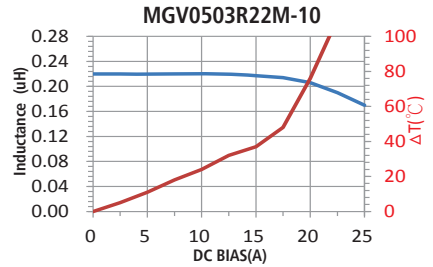
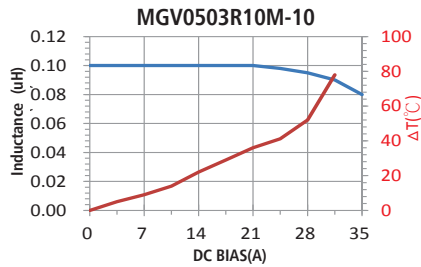
**SHAPES AND DIMENSIONS**



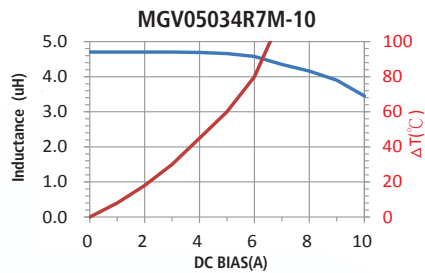
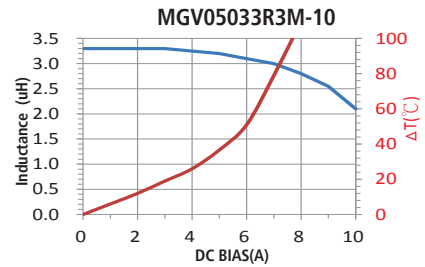
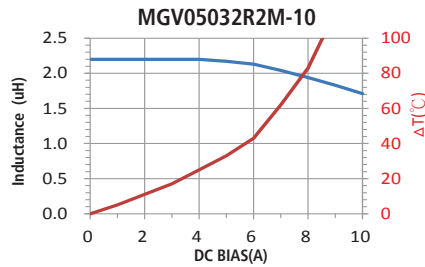
A	B	C	D	E	a	b	c
5.5 $\pm$ 0.5	5.1 $\pm$ 0.3	3.0 $\pm$ 0.3	1.5 $\pm$ 0.3	1.2 $\pm$ 0.5	2.0 ref	3.0 ref	2.5 ref

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

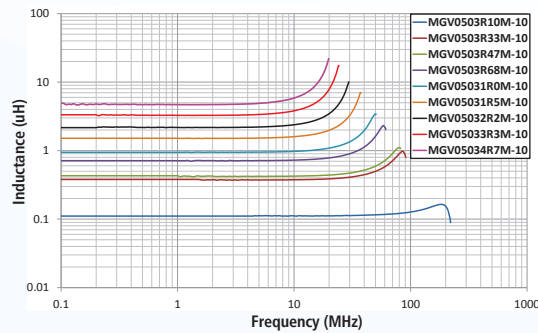
**TYPICAL ELECTRICAL CHARACTERISTICS**



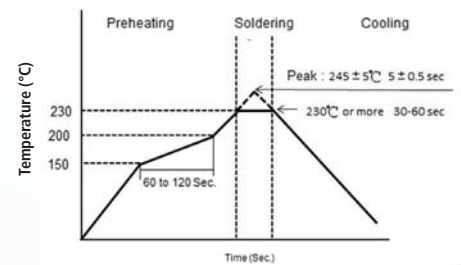
**TYPICAL ELECTRICAL CHARACTERISTICS**



**INDUCTANCE VS FREQUENCY CURVE**



**TEMPERATURE PROFILE OF REFLOW SOLDERING**



**ORDERING INFORMATION**

**PART NUMBER EXAMPLE**

M	G	V	0	5	0	3	1	R	5	M	-	1	0
Product series code			Part size code			Inductance value code <small>(i.e. 1R5: 1.5uH)</small>			Tolerance % <small>(i.e. M: ±20%)</small>	PB free code <small>(i.e. 10: PB free)</small>			

**PACKAGING INFORMATION**

- Standard Tape and Reel Quantity (PCS) = 2500
- Reel Size = 13 inches