



**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**

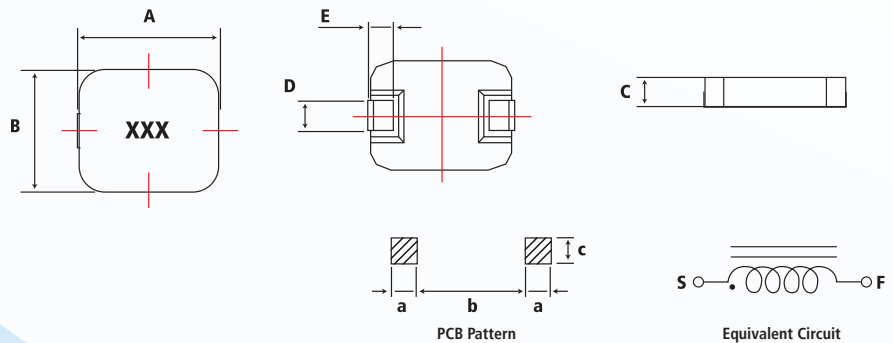
PART NO.	INDUCTANCE ( $\mu\text{H} \pm 20\%$ )	DCR ( $\text{m}\Omega$ ) MAX	SATURATION CURRENT <sup>4</sup> (A) MAX	RMS CURRENT <sup>3</sup> (A) MAX
MGV1205R10M-10	0.1	0.6	118.0	55.0
MGV1205R22M-10	0.22	0.8	110.0	51.0
MGV1205R33M-10	0.33	1.1	80.0	42.0
MGV1205R47M-10	0.47	1.3	65.0	38.0
MGV1205R56M-10	0.56	1.5	55.0	36.0
MGV1205R68M-10	0.68	1.7	54.0	34.0
MGV1205R82M-10	0.82	2.3	53.0	31.0
MGV12051R0M-10	1	2.5	50.0	29.0
MGV12051R5M-10	1.5	4.1	48.0	23.0
MGV12051R8M-10	1.8	4.9	40.0	19.0
MGV12052R2M-10	2.2	5.5	32.0	20.0
MGV12053R3M-10	3.3	9.2	32.0	15.0
MGV12054R7M-10	4.7	15.0	27.0	12.0
MGV12055R6M-10	5.6	16.5	22.0	11.5
MGV12056R8M-10	6.8	18.5	21.0	11.0
MGV12057R8M-10	7.8	20.5	18.0	10.0
MGV12058R2M-10	8.2	22.5	18.0	9.5
MGV1205100M-10	10	25.5	16.0	9.0

Remark:

- 1 Tolerance: M:  $\pm 20\%$
- 2 Inductance tested at 100KHz, 0.25V
- 3 RMS Current is defined based on a temperature rise of approximately 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**

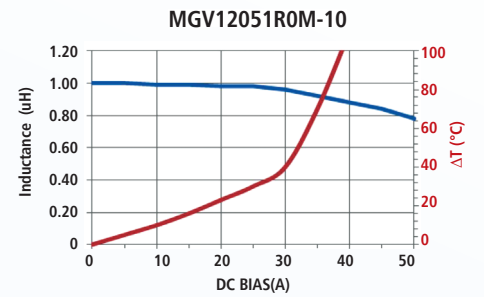
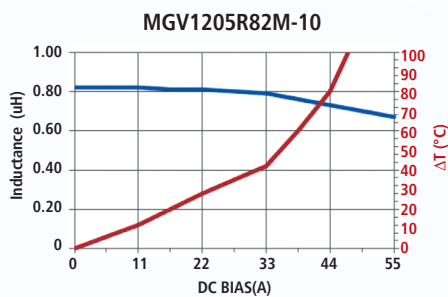
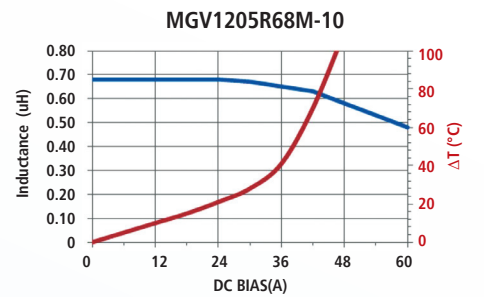
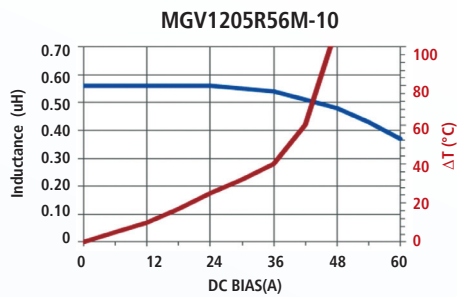
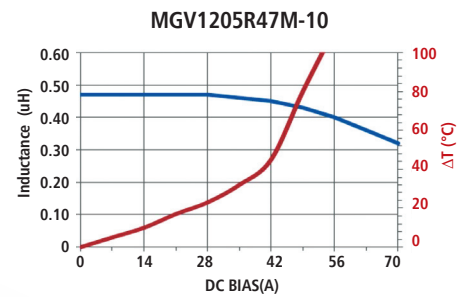
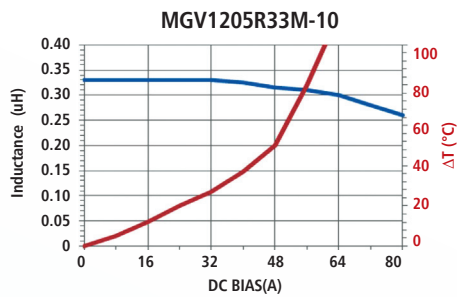
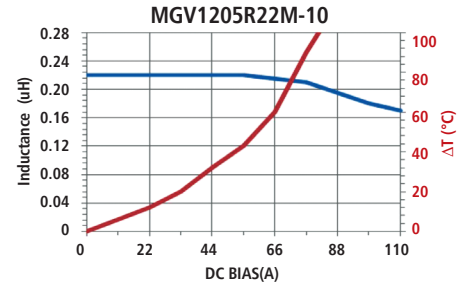
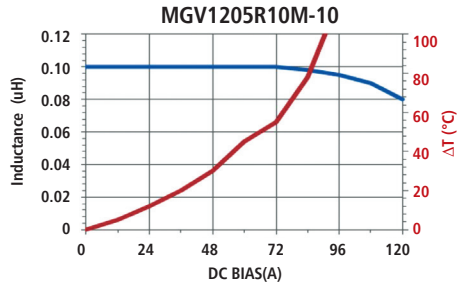
Unit: mm



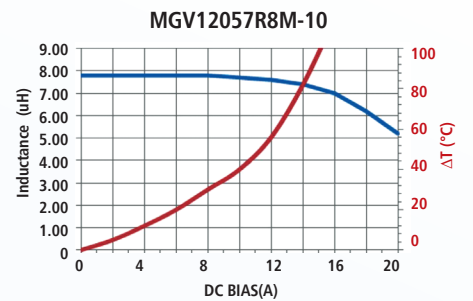
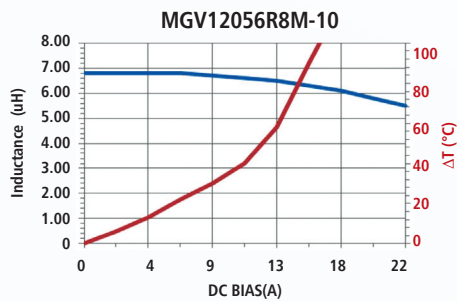
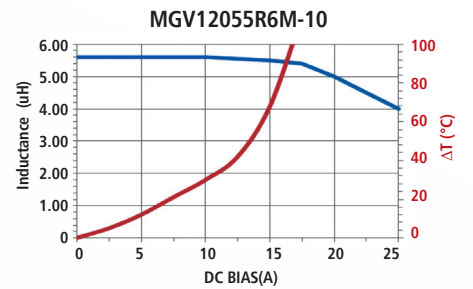
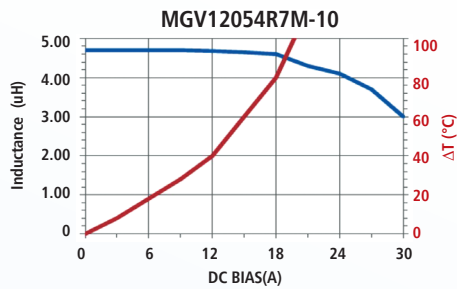
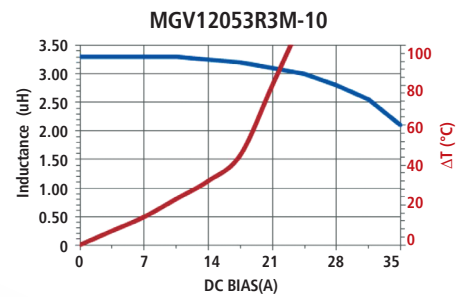
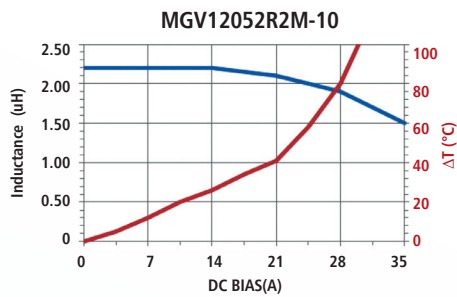
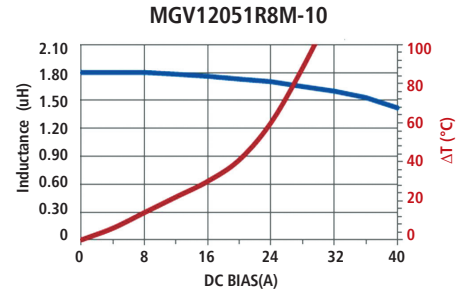
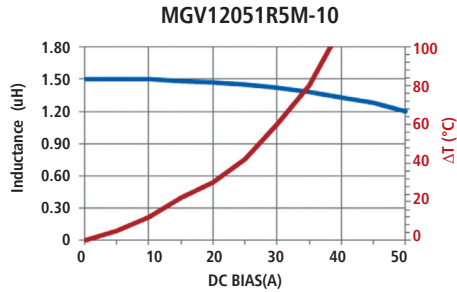
A	B	C	D	E	a	b	c
13.5 $\pm$ 0.5	12.6 $\pm$ 0.3	5.0 $\pm$ 0.3	3.6 $\pm$ 0.5	2.3 $\pm$ 0.5	2.9 ref	7.9 ref	5.0 ref

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

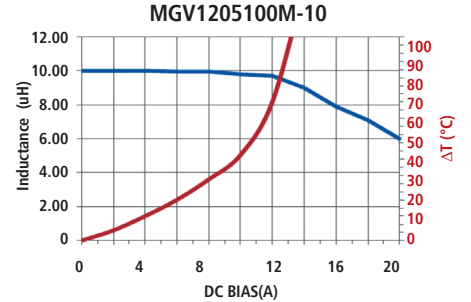
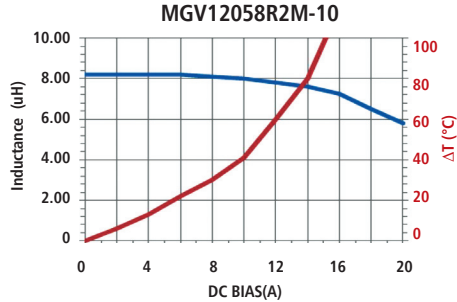
**TYPICAL ELECTRICAL CHARACTERISTICS**



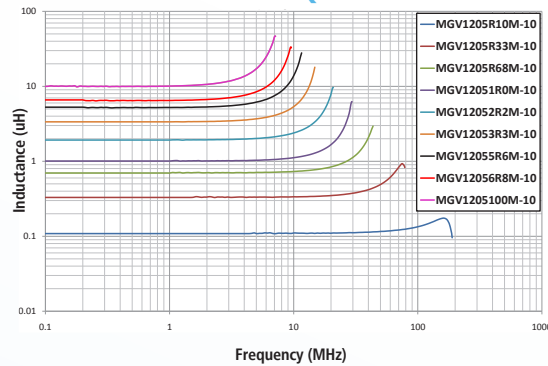
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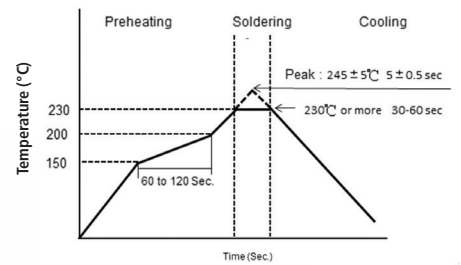
### TYPICAL ELECTRICAL CHARACTERISTICS



### INDUCTANCE VS FREQUENCY CURVE



### TEMPERATURE PROFILE OF REFLOW SOLDERING.



### ORDERING INFORMATION

#### PART NUMBER EXAMPLE

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

### PACKAGING INFORMATION

- Standard Tape and Reel Quantity (PCS) = 500
- Reel Size = 13 inches