



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

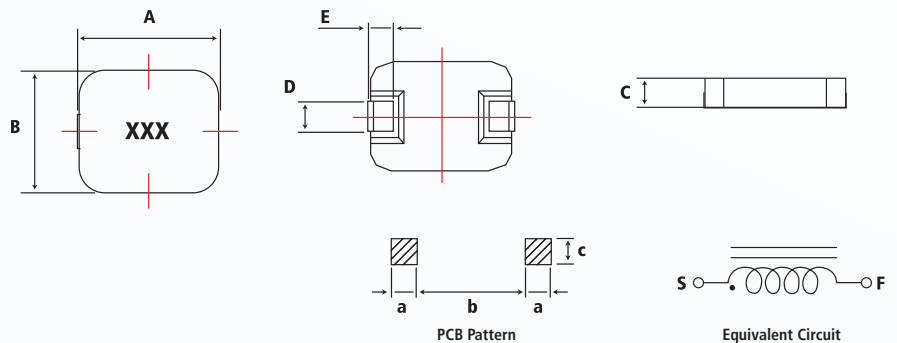
ELECTRICAL CHARACTERISTICS

| PART NO. | INDUCTANCE ($\mu\text{H} \pm 20\%$) | DCR ($\text{m}\Omega$) MAX | SATURATION CURRENT ⁴ (A) MAX | RMS CURRENT ³ (A) MAX |
|----------------|--|---------------------------------|--|-------------------------------------|
| MGV1004R19M-10 | 0.19 | 1.0 | 90.0 | 40.0 |
| MGV1004R36M-10 | 0.36 | 1.4 | 60.0 | 31.5 |
| MGV1004R47M-10 | 0.47 | 1.6 | 53.0 | 28.5 |
| MGV1004R56M-10 | 0.56 | 1.8 | 49.0 | 27.5 |
| MGV1004R0M-10 | 1 | 4.1 | 36.0 | 17.5 |
| MGV1004R5M-10 | 1.5 | 5.8 | 27.5 | 15.0 |
| MGV1004R2M-10 | 2.2 | 9.0 | 25.6 | 12.0 |
| MGV1004R3M-10 | 3.3 | 11.8 | 18.6 | 10.0 |
| MGV1004R7M-10 | 4.7 | 16.5 | 17.0 | 9.5 |
| MGV1004R6M-10 | 5.6 | 19.3 | 16.0 | 8.5 |
| MGV1004R8M-10 | 6.8 | 23.3 | 13.5 | 8.0 |
| MGV1004R10M-10 | 10 | 36.5 | 12.0 | 6.8 |

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.)

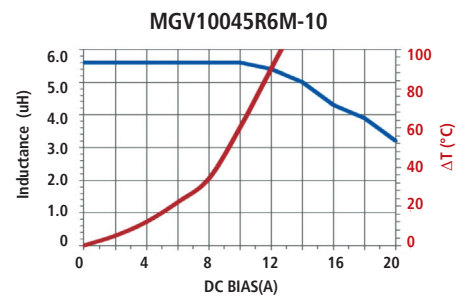
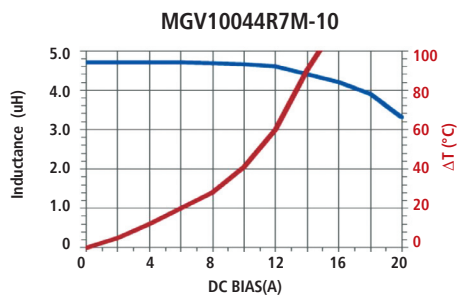
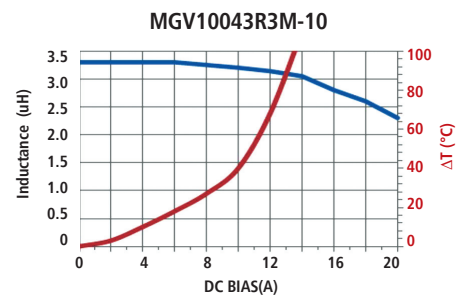
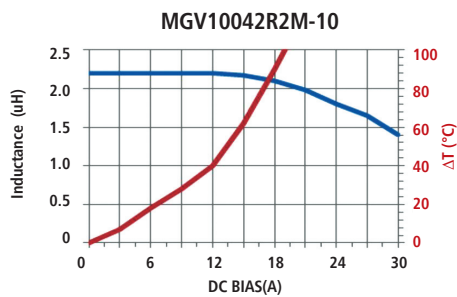
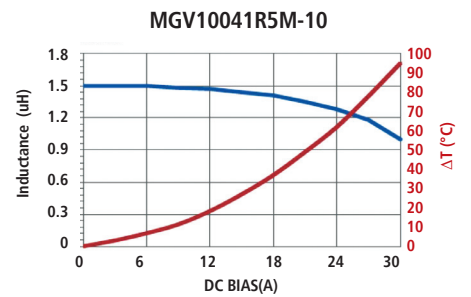
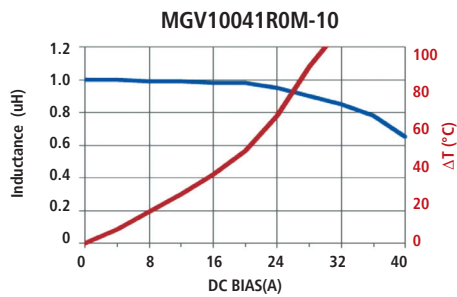
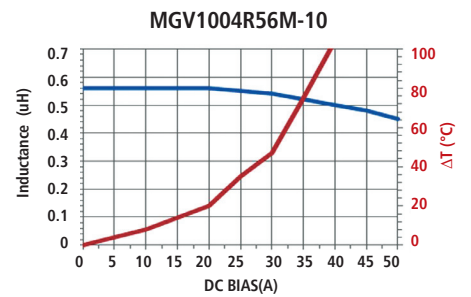
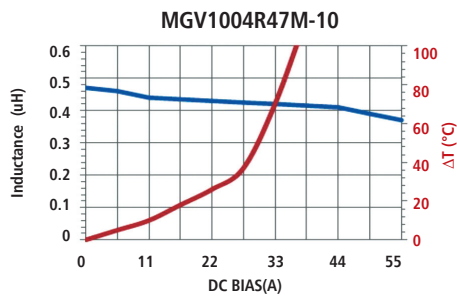
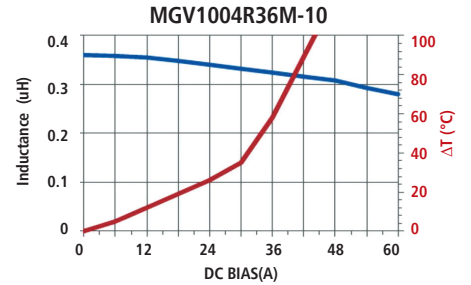
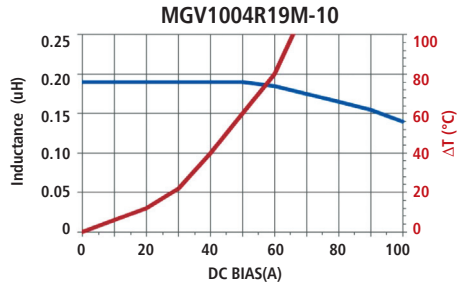
SHAPES AND DIMENSIONS Unit: mm



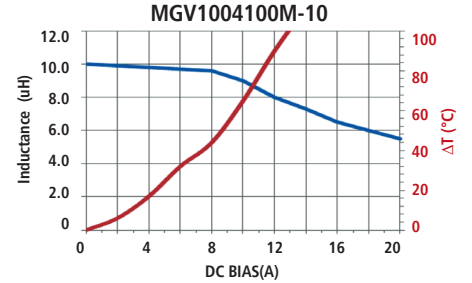
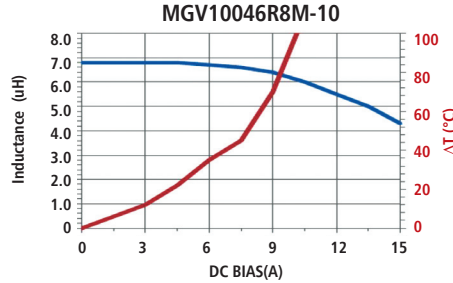
| A | B | C | D | E | a | b | c |
|----------------|----------------|---------------|---------------|---------------|--------|--------|--------|
| 11.0 \pm 0.5 | 10.0 \pm 0.3 | 4.0 \pm 0.3 | 2.9 \pm 0.5 | 2.2 \pm 0.5 | 3.5ref | 6.0ref | 4.0ref |

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

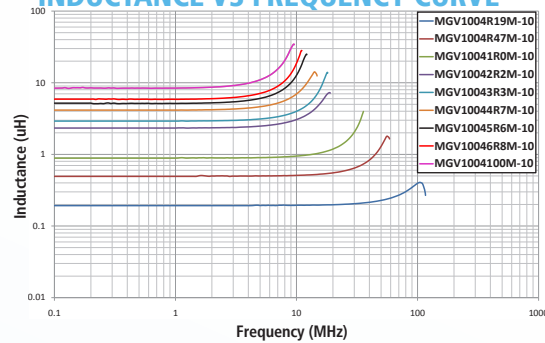
TYPICAL ELECTRICAL CHARACTERISTICS



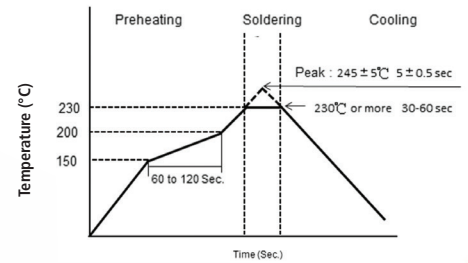
TYPICAL ELECTRICAL CHARACTERISTICS



INDUCTANCE VS FREQUENCY CURVE



TEMPERATURE PROFILE OF REFLOW SOLDERING.



ORDERING INFORMATION

PART NUMBER EXAMPLE

| | | | | | | | | | | | | | |
|---------------------|---|---|----------------|---|---|--|---|---|-------------------------------|------------------------------------|---|---|---|
| M | G | V | 1 | 0 | 0 | 4 | 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) = 1000
- Reel Size = 13 inches