



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

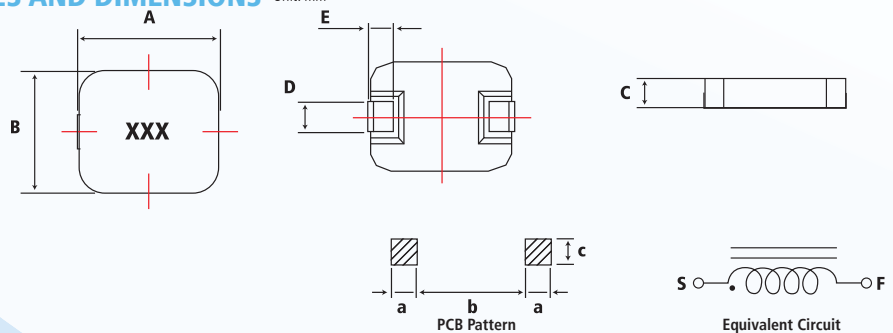
| PART NO. | INDUCTANCE ($\mu\text{H} \pm 20\%$) | DCR ($\text{m}\Omega$) MAX | SATURATION CURRENT ⁴ (A) MAX | RMS CURRENT ³ (A) MAX |
|----------------|--|---------------------------------|--|-------------------------------------|
| MGV0603R10M-10 | 0.1 | 1.70 | 60.00 | 32.50 |
| MGV0603R22M-10 | 0.22 | 2.80 | 40.00 | 23.00 |
| MGV0603R33M-10 | 0.33 | 3.90 | 30.00 | 20.00 |
| MGV0603R47M-10 | 0.47 | 4.20 | 26.00 | 17.50 |
| MGV0603R68M-10 | 0.68 | 5.50 | 25.00 | 15.50 |
| MGV0603R82M-10 | 0.82 | 8.00 | 24.00 | 13.00 |
| MGV06031R0M-10 | 1.00 | 10.00 | 22.00 | 11.00 |
| MGV06031R5M-10 | 1.50 | 15.00 | 18.00 | 9.00 |
| MGV06032R2M-10 | 2.20 | 20.00 | 14.00 | 8.00 |
| MGV06033R3M-10 | 3.30 | 30.00 | 13.50 | 6.00 |
| MGV06034R7M-10 | 4.70 | 40.00 | 10.00 | 5.50 |
| MGV06036R8M-10 | 6.80 | 60.00 | 8.00 | 4.50 |
| MGV06038R2M-10 | 8.20 | 68.00 | 7.50 | 4.00 |
| MGV0603100M-10 | 10.00 | 105.00 | 7.00 | 3.00 |

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

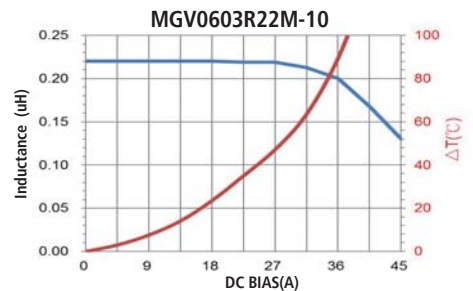
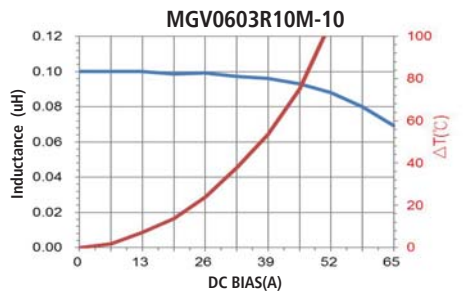
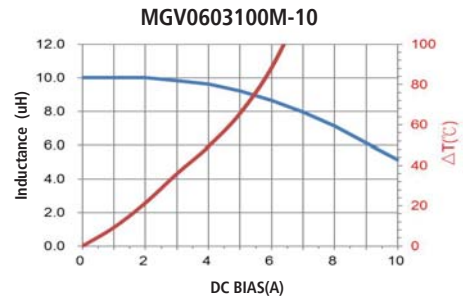
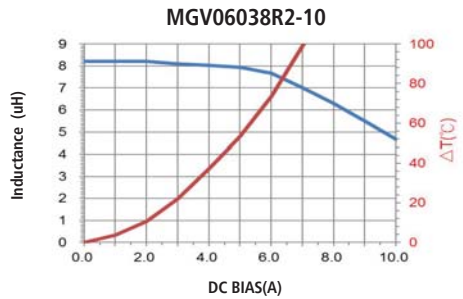
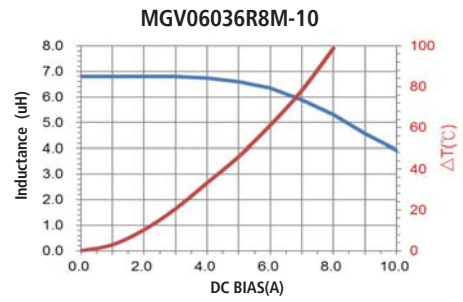
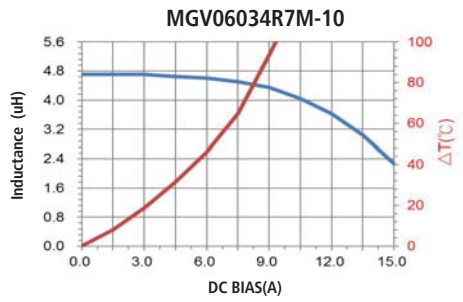
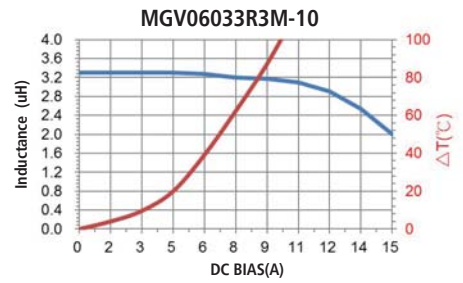
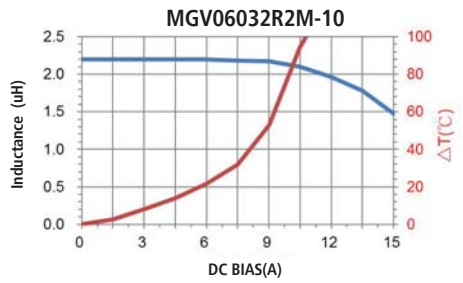
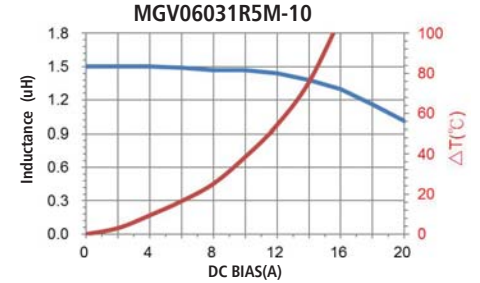
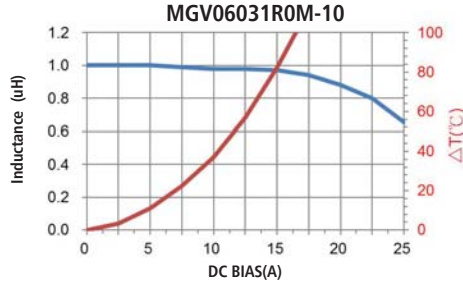
Unit: mm



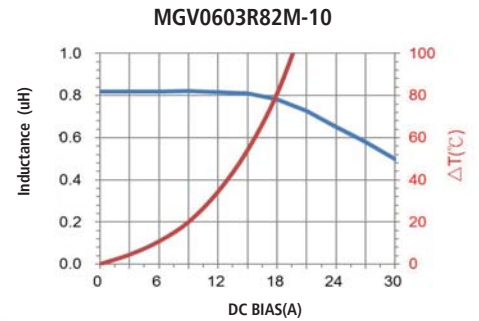
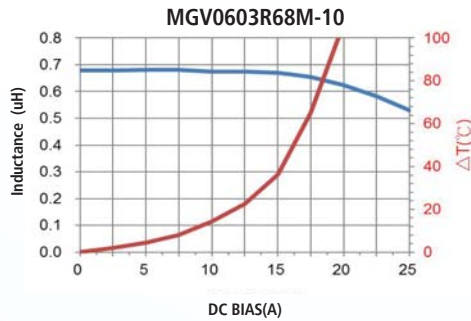
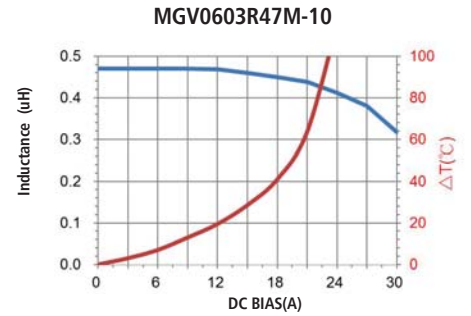
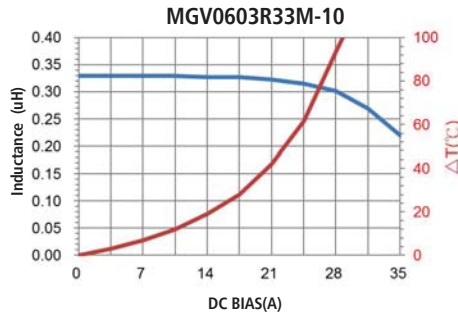
| A | B | C | D | E | a | b | c |
|---------------|---------------|---------------|---------------|---------------|--------|--------|--------|
| 7.3 \pm 0.5 | 6.7 \pm 0.3 | 3.0 \pm 0.3 | 2.9 \pm 0.3 | 1.6 \pm 0.5 | 2.5ref | 3.7ref | 3.5ref |

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

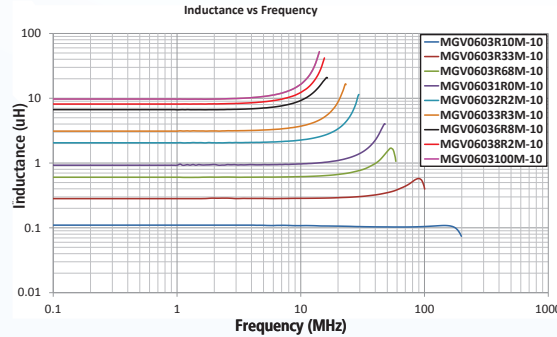
TYPICAL ELECTRICAL CHARACTERISTICS



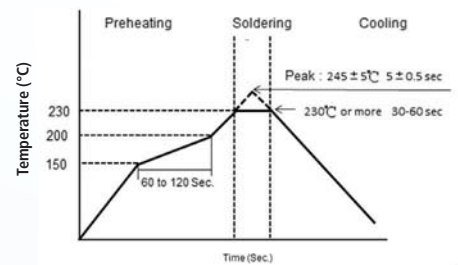
TYPICAL ELECTRICAL CHARACTERISTICS



INDUCTANCE VS FREQUENCY CURVE



TEMPERATURE PROFILE OF REFLOW SOLDERING.



ORDERING INFORMATION

PART NUMBER EXAMPLE

| | | | | | | | | | | | | | |
|---------------------|---|---|----------------|---|---|---|---|---|--|---|---|---|---|
| M | G | V | 0 | 6 | 0 | 3 | 4 | R | 7 | M | - | 1 | 0 |
| Product series code | | | Part size code | | | Inductance value code <small>(i.e. 4R7: 4.7uH)</small> | | | Tolerance % <small>(i.e. M: ±20% • N: ±30%)</small> | | PB free code <small>(i.e. 10: PB free)</small> | | |

PACKAGING INFORMATION

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