

Features

- Magnetic-resin shielded construction reduces buzz noise to ultra-low levels
- Metallization on ferrite core results in excellent shock resistance and damage-free durability
- Tiny power inductor design
- Closed magnetic circuit design reduces leakage flux and Electro Magnetic Interference (EMI)
- Takes up less PCB real estate and save more power
- 30% lower DCR and larger current
- Operating temperature: -40°C to +125°C



Application

- DC/DC converters for high current power supplies
- Portable power like Smart Phone, PDA, digital camera
- Embedded laptops and PCs

Product Identification

KNR 252012 - 2R2 M □□□

① ② ③ ④ ⑤

| ① | Type |
|-----|-------------------------------|
| KNR | Wire Wound SMD Power Inductor |

| ③ | Nominal Inductance |
|---------|--------------------|
| example | Nominal Value |
| R47 | 0.47uH |
| 2R2 | 2.2 uH |

| ④ | Inductance Tolerance |
|---------|----------------------|
| example | Nominal Value |
| K | ±10% |
| M | ±20% |
| N | ±30% |

| ② | External Dimensions (L×W×H) [mm] |
|--------|----------------------------------|
| 201610 | 2.0x1.6x1.0 |
| 202012 | 2.0x2.0x1.2 |
| 252010 | 2.5x2.0x1.0 |
| 252012 | 2.5x2.0x1.2 |
| 3012 | 3.0x3.0x1.2 |
| 3015 | 3.0x3.0x1.5 |
| 4012 | 4.0x4.0x1.2 |
| 4018 | 4.0x4.0x1.8 |
| 4020 | 4.0x4.0x2.0 |
| 4030 | 4.0x4.0x3.0 |
| 8030 | 8.0x8.0x3.0 |
| 8040 | 8.0x8.0x4.0 |

| ⑤ | Design Code |
|-----|---------------------------|
| □□□ | Standard product is blank |

SHAPE AND DIMENSIONS

Fig.1

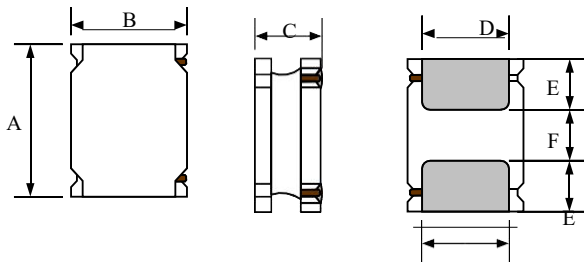


Fig.2

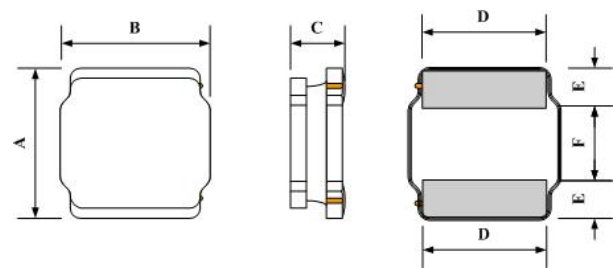
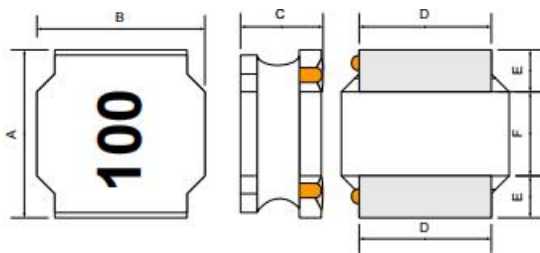
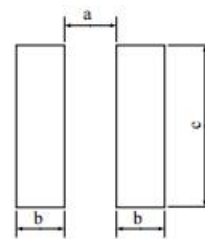


Fig.3



Recommended Land Pattern



Unit:mm

| Series | Shape | A | B | C | D | E | F | a Typ. | b Typ. | c Typ. |
|-----------|-------|---------|---------|----------|---------|----------|----------|--------|--------|--------|
| KNR201610 | Fig.1 | 2.0±0.2 | 1.6±0.2 | 1.0 Max. | 1.2±0.2 | 0.60±0.2 | 0.80±0.2 | 0.70 | 0.70 | 1.7 |
| KNR202012 | Fig.1 | 2.0±0.1 | 2.0±0.1 | 1.2 Max. | 1.5±0.2 | 0.60±0.2 | 0.80±0.2 | 0.65 | 0.70 | 2.0 |
| KNR252010 | Fig.1 | 2.5±0.2 | 2.0±0.2 | 1.0 Max. | 1.5±0.2 | 0.80±0.2 | 0.80±0.2 | 0.80 | 0.85 | 2.0 |
| KNR252012 | Fig.1 | 2.5±0.2 | 2.0±0.2 | 1.2 Max. | 1.5±0.2 | 0.80±0.2 | 0.80±0.2 | 0.80 | 0.85 | 2.0 |
| KNR3012 | Fig.2 | 3.0±0.2 | 3.0±0.2 | 1.2 Max. | 2.5±0.2 | 0.75±0.2 | 1.5±0.2 | 1.5 | 0.8 | 2.7 |
| KNR3015 | Fig.2 | 3.0±0.2 | 3.0±0.2 | 1.5 Max. | 2.5±0.2 | 0.75±0.2 | 1.5±0.2 | 1.5 | 0.8 | 2.7 |
| KNR4012 | Fig.3 | 4.0±0.2 | 4.0±0.2 | 1.2 Max. | 3.3±0.2 | 0.95±0.2 | 2.1±0.2 | 1.9 | 1.1 | 3.7 |
| KNR4018 | Fig.3 | 4.0±0.2 | 4.0±0.2 | 1.8 Max. | 3.3±0.2 | 0.95±0.2 | 2.1±0.2 | 1.9 | 1.1 | 3.7 |
| KNR4020 | Fig.3 | 4.0±0.2 | 4.0±0.2 | 2.0 Max. | 3.3±0.2 | 0.95±0.2 | 2.1±0.2 | 1.9 | 1.1 | 3.7 |
| KNR4030 | Fig.3 | 4.0±0.2 | 4.0±0.2 | 3.0 Max. | 3.3±0.2 | 0.95±0.2 | 2.1±0.2 | 1.9 | 1.1 | 3.7 |
| KNR8030 | Fig.3 | 8.0±0.3 | 8.0±0.3 | 3.0 Max. | 6.3±0.3 | 2.00±0.3 | 4.0±0.3 | 3.0 | 2.2 | 7.5 |
| KNR8040 | Fig.3 | 8.0±0.3 | 8.0±0.3 | 4.2 Max. | 6.3±0.3 | 2.00±0.3 | 4.0±0.3 | 3.8 | 2.2 | 7.5 |

SPECIFICATIONS

KNR201610 Series

| Part Number | Inductance | DC Resistance | | Saturation Current | | Heat Rating Current | |
|-----------------|------------|---------------|-------|--------------------|------|---------------------|------|
| | @100KHz 1v | Max. | Typ. | Max. | Typ. | Max. | Typ. |
| units | uH | Ω | | A | | A | |
| Symbol | L | DCR | | Isat | | I _{rms} | |
| KNR201610-R16MT | 0.16±20% | 0.031 | 0.026 | 4.30 | 4.80 | 3.20 | 3.50 |
| KNR201610-R24MT | 0.24±20% | 0.040 | 0.033 | 3.70 | 4.10 | 2.90 | 3.20 |
| KNR201610-R33MT | 0.33±20% | 0.040 | 0.033 | 2.50 | 3.10 | 2.90 | 3.20 |
| KNR201610-R47MT | 0.47±20% | 0.059 | 0.049 | 2.30 | 2.85 | 2.35 | 2.60 |
| KNR201610-R54MT | 0.54±20% | 0.076 | 0.063 | 2.55 | 2.95 | 2.05 | 2.25 |

| | | | | | | | |
|-----------------|----------|-------|-------|------|------|------|------|
| KNR201610-R68MT | 0.68±20% | 0.076 | 0.063 | 1.95 | 2.45 | 2.05 | 2.25 |
| KNR201610-1R0MT | 1.0±20% | 0.114 | 0.095 | 1.65 | 1.85 | 1.45 | 1.60 |
| KNR201610-1R5MT | 1.5±20% | 0.174 | 0.145 | 1.35 | 1.65 | 1.25 | 1.40 |
| KNR201610-2R2MT | 2.2±20% | 0.264 | 0.220 | 1.20 | 1.45 | 1.10 | 1.20 |
| KNR201610-3R3MT | 3.3±20% | 0.335 | 0.279 | 0.90 | 1.05 | 0.88 | 0.98 |
| KNR201610-4R7MT | 4.7±20% | 0.479 | 0.399 | 0.70 | 0.85 | 0.74 | 0.82 |
| KNR201610-6R8MT | 6.8±20% | 0.816 | 0.680 | 0.60 | 0.70 | 0.52 | 0.58 |
| KNR201610-100MT | 10.0±20% | 1.020 | 0.850 | 0.50 | 0.55 | 0.45 | 0.50 |

KNR202012 Series

| Part Number | Inductance | DC Resistance | | Saturation Current | | Heat Rating Current | |
|-----------------|------------|---------------|-------|--------------------|------|---------------------|------|
| | @100KHz 1v | Max. | Typ. | Max. | Typ. | Max. | Typ. |
| units | uH | Ω | | A | | A | |
| Symbol | L | DCR | | Isat | | Irms | |
| KNR202012-R16MT | 0.16±20% | 0.031 | 0.026 | 5.20 | 5.80 | 2.50 | 2.75 |
| KNR202012-R24MT | 0.24±20% | 0.042 | 0.035 | 4.70 | 5.20 | 2.20 | 2.40 |
| KNR202012-R33MT | 0.33±20% | 0.042 | 0.035 | 3.50 | 4.00 | 2.20 | 2.40 |
| KNR202012-R47MT | 0.47±20% | 0.050 | 0.042 | 3.55 | 3.75 | 2.00 | 2.20 |
| KNR202012-R68MT | 0.68±20% | 0.060 | 0.050 | 2.95 | 3.10 | 1.80 | 2.00 |
| KNR202012-1R0MT | 1.0±20% | 0.088 | 0.073 | 2.70 | 2.85 | 1.50 | 1.65 |
| KNR202012-1R5MT | 1.5±20% | 0.112 | 0.093 | 2.00 | 2.20 | 1.30 | 1.45 |
| KNR202012-2R2MT | 2.2±20% | 0.127 | 0.106 | 1.40 | 1.65 | 1.20 | 1.35 |
| KNR202012-3R3MT | 3.3±20% | 0.276 | 0.230 | 1.20 | 1.35 | 0.85 | 0.95 |
| KNR202012-4R7MT | 4.7±20% | 0.294 | 0.245 | 0.97 | 1.10 | 0.82 | 0.90 |
| KNR202012-6R8MT | 6.8±20% | 0.479 | 0.399 | 0.82 | 0.92 | 0.64 | 0.70 |
| KNR202012-100MT | 10±20% | 0.785 | 0.654 | 0.72 | 0.82 | 0.49 | 0.54 |
| KNR202012-150MT | 15±20% | 1.368 | 1.140 | 0.55 | 0.65 | 0.38 | 0.42 |
| KNR202012-180MT | 18±20% | 1.680 | 1.400 | 0.60 | 0.68 | 0.35 | 0.38 |
| KNR202012-220MT | 22±20% | 1.680 | 1.400 | 0.40 | 0.50 | 0.35 | 0.38 |
| KNR202012-330MT | 33±20% | 2.160 | 1.800 | 0.35 | 0.40 | 0.30 | 0.33 |

KNR252010 Series

| Part Number | Inductance | DC Resistance | | Saturation Current | | Heat Rating Current | |
|-----------------|------------|---------------|-------|--------------------|------|---------------------|------|
| | @100KHz 1v | Max. | Typ. | Max. | Typ. | Max. | Typ. |
| units | uH | Ω | | A | | A | |
| Symbol | L | DCR | | Isat | | Irms | |
| KNR252010-R24MT | 0.24±20% | 0.034 | 0.028 | 3.60 | 4.40 | 2.75 | 3.00 |
| KNR252010-R33MT | 0.33±20% | 0.043 | 0.036 | 3.80 | 4.60 | 2.40 | 2.65 |
| KNR252010-R47MT | 0.47±20% | 0.044 | 0.037 | 2.40 | 2.80 | 2.40 | 2.65 |

| | | | | | | | |
|-----------------|----------|-------|-------|------|------|------|------|
| KNR252010-R68MT | 0.68±20% | 0.061 | 0.051 | 2.75 | 3.10 | 2.10 | 2.35 |
| KNR252010-1R0MT | 1.0±20% | 0.080 | 0.067 | 2.05 | 2.45 | 1.80 | 2.00 |
| KNR252010-1R5MT | 1.5±20% | 0.108 | 0.090 | 1.70 | 2.05 | 1.55 | 1.70 |
| KNR252010-2R2MT | 2.2±20% | 0.137 | 0.114 | 1.55 | 1.80 | 1.40 | 1.55 |
| KNR252010-3R3MT | 3.3±20% | 0.228 | 0.170 | 1.10 | 1.40 | 1.10 | 1.20 |
| KNR252010-3R9MT | 3.9±20% | 0.271 | 0.226 | 1.07 | 1.25 | 1.00 | 1.06 |
| KNR252010-4R7MT | 4.7±20% | 0.323 | 0.269 | 1.00 | 1.15 | 0.91 | 1.00 |
| KNR252010-5R6MT | 5.6±20% | 0.348 | 0.290 | 0.90 | 1.00 | 0.80 | 0.92 |
| KNR252010-6R8MT | 6.8±20% | 0.451 | 0.376 | 0.82 | 0.95 | 0.76 | 0.84 |
| KNR252010-8R2M | 8.2±20% | 0.584 | 0.487 | 0.85 | 0.95 | 0.67 | 0.74 |
| KNR252010-100MT | 10±20% | 0.584 | 0.487 | 0.65 | 0.75 | 0.67 | 0.74 |
| KNR252010-150MT | 15±20% | 0.954 | 0.795 | 0.55 | 0.65 | 0.50 | 0.55 |
| KNR252010-220MT | 22±20% | 1.548 | 1.290 | 0.45 | 0.55 | 0.40 | 0.45 |
| KNR252010-330MT | 33±20% | 1.548 | 1.290 | 0.25 | 0.30 | 0.40 | 0.45 |

KNR252012 Series

| Part Number | Inductance | DC Resistance | | Saturation Current | | Heat Rating Current | |
|-----------------|------------|---------------|-------|--------------------|------|---------------------|------|
| | @100KHz 1v | Max. | Typ. | Max. | Typ. | Max. | Typ. |
| units | uH | Ω | | A | | A | |
| Symbol | L | DCR | | Isat | | Irms | |
| KNR252012-R16MT | 0.16±20% | 0.022 | 0.018 | 6.50 | 7.20 | 4.05 | 4.50 |
| KNR252012-R22MT | 0.22±20% | 0.024 | 0.020 | 6.70 | 7.60 | 3.20 | 3.70 |
| KNR252012-R24MT | 0.24±20% | 0.022 | 0.018 | 4.00 | 4.75 | 4.05 | 4.50 |
| KNR252012-R33MT | 0.33±20% | 0.029 | 0.024 | 4.00 | 4.70 | 3.35 | 3.70 |
| KNR252012-R47MT | 0.47±20% | 0.036 | 0.030 | 3.70 | 4.10 | 3.00 | 3.30 |
| KNR252012-R68MT | 0.68±20% | 0.061 | 0.051 | 3.00 | 3.30 | 2.10 | 2.30 |
| KNR252012-1R0MT | 1.0±20% | 0.044 | 0.037 | 1.70 | 1.90 | 2.20 | 2.40 |
| KNR252012-1R2MT | 1.2±20% | 0.078 | 0.065 | 2.20 | 2.50 | 1.95 | 2.10 |
| KNR252012-1R5MT | 1.5±20% | 0.078 | 0.065 | 2.00 | 2.35 | 1.95 | 2.10 |
| KNR252012-2R2MT | 2.2±20% | 0.096 | 0.080 | 1.80 | 1.95 | 1.80 | 1.95 |
| KNR252012-2R7MT | 2.7±20% | 0.179 | 0.149 | 1.85 | 2.00 | 1.20 | 1.40 |
| KNR252012-3R3MT | 3.3±20% | 0.144 | 0.120 | 1.15 | 1.25 | 1.40 | 1.50 |
| KNR252012-4R7MT | 4.7±20% | 0.210 | 0.175 | 1.10 | 1.20 | 1.12 | 1.25 |
| KNR252012-5R6MT | 5.6±20% | 0.336 | 0.280 | 1.00 | 1.15 | 0.80 | 0.90 |
| KNR252012-6R8MT | 6.8±20% | 0.360 | 0.300 | 0.80 | 1.00 | 0.95 | 1.05 |
| KNR252012-100MT | 10±20% | 0.522 | 0.435 | 0.70 | 0.85 | 0.79 | 0.87 |
| KNR252012-150MT | 15±20% | 1.000 | 0.830 | 0.65 | 0.75 | 0.57 | 0.63 |
| KNR252012-180MT | 18±20% | 1.000 | 0.830 | 0.50 | 0.65 | 0.57 | 0.63 |
| KNR252012-220MT | 22±20% | 1.090 | 0.910 | 0.45 | 0.55 | 0.54 | 0.60 |

| | | | | | | | |
|-----------------|--------|-------|-------|------|------|------|------|
| KNR252012-330MT | 33±20% | 1.840 | 1.530 | 0.35 | 0.40 | 0.42 | 0.46 |
| KNR252012-470MT | 47±20% | 2.220 | 1.850 | 0.25 | 0.30 | 0.30 | 0.35 |
| KNR252012-560MT | 56±20% | 2.760 | 2.300 | 0.30 | 0.35 | 0.29 | 0.33 |
| KNR252012-680MT | 68±20% | 3.000 | 2.500 | 0.30 | 0.35 | 0.28 | 0.32 |
| KNR252012-820MT | 82±20% | 3.096 | 2.580 | 0.21 | 0.25 | 0.28 | 0.32 |

KNR3012 Series

| Part Number | Inductance | DC Resistance | | Saturation Current | | Heat Rating Current | |
|---------------|------------|---------------|-------|--------------------|-------|---------------------|------|
| | @100KHz 1v | Max. | Typ. | Max. | Typ. | Max. | Typ. |
| units | uH | Ω | | A | | A | |
| Symbol | L | DCR | | Isat | | Irms | |
| KNR3012-R10MT | 0.1±20% | 0.018 | 0.015 | 9.20 | 10.58 | 3.50 | 4.03 |
| KNR3012-R47MT | 0.47±20% | 0.030 | 0.025 | 3.80 | 4.40 | 2.90 | 3.30 |
| KNR3012-1R0MT | 1.0±20% | 0.040 | 0.032 | 2.20 | 2.50 | 2.30 | 2.50 |
| KNR3012-1R5MT | 1.5±20% | 0.062 | 0.052 | 2.00 | 2.30 | 2.00 | 2.20 |
| KNR3012-2R2MT | 2.2±20% | 0.090 | 0.075 | 1.50 | 1.80 | 1.40 | 1.60 |
| KNR3012-3R3MT | 3.3±20% | 0.134 | 0.112 | 1.23 | 1.55 | 1.40 | 1.60 |
| KNR3012-4R7MT | 4.7±20% | 0.176 | 0.147 | 1.10 | 1.40 | 1.30 | 1.50 |
| KNR3012-6R8MT | 6.8±20% | 0.259 | 0.216 | 1.00 | 1.20 | 1.00 | 1.20 |
| KNR3012-100MT | 10±20% | 0.372 | 0.310 | 0.75 | 0.90 | 0.75 | 0.80 |
| KNR3012-150MT | 15±20% | 0.66 | 0.55 | 0.65 | 0.75 | 0.63 | 0.72 |
| KNR3012-220MT | 22±20% | 0.84 | 0.7 | 0.5 | 0.6 | 0.5 | 0.55 |

KNR3015 Series

| Part Number | Inductance | DC Resistance | | Saturation Current | | Heat Rating Current | |
|---------------|------------|---------------|-------|--------------------|------|---------------------|------|
| | @100KHz 1v | Max. | Typ. | Max. | Typ. | Max. | Typ. |
| units | uH | Ω | | A | | A | |
| Symbol | L | DCR | | Isat | | Irms | |
| KNR3015-R10MT | 0.1±20% | 0.007 | 0.006 | 8.00 | 9.20 | 4.60 | 5.30 |
| KNR3015-R22MT | 0.22±20% | 0.022 | 0.018 | 6.00 | 6.80 | 3.00 | 3.50 |
| KNR3015-R24MT | 0.24±20% | 0.022 | 0.018 | 5.50 | 5.50 | 3.00 | 3.50 |
| KNR3015-R47MT | 0.47±20% | 0.022 | 0.018 | 2.40 | 2.80 | 3.00 | 3.50 |
| KNR3015-R55MT | 0.55±20% | 0.019 | 0.016 | 2.40 | 2.70 | 3.05 | 3.55 |
| KNR3015-1R0MT | 1.0±20% | 0.040 | 0.033 | 2.70 | 3.00 | 2.20 | 2.50 |
| KNR3015-1R5MT | 1.5±20% | 0.048 | 0.040 | 2.00 | 2.30 | 2.00 | 2.30 |
| KNR3015-1R8MT | 1.8±20% | 0.050 | 0.042 | 1.60 | 1.90 | 1.90 | 2.20 |
| KNR3015-2R2MT | 2.2±20% | 0.060 | 0.050 | 1.50 | 1.70 | 1.80 | 2.05 |
| KNR3015-3R3MT | 3.3±20% | 0.084 | 0.070 | 1.30 | 1.50 | 1.50 | 1.70 |
| KNR3015-3R9MT | 3.9±20% | 0.115 | 0.096 | 1.30 | 1.60 | 1.30 | 1.50 |

| | | | | | | | |
|---------------|---------|-------|-------|------|------|------|------|
| KNR3015-4R7MT | 4.7±20% | 0.115 | 0.096 | 1.10 | 1.20 | 1.30 | 1.50 |
| KNR3015-6R8MT | 6.8±20% | 0.144 | 0.120 | 0.80 | 0.90 | 1.16 | 1.35 |
| KNR3015-100MT | 10±20% | 0.276 | 0.230 | 0.75 | 0.90 | 0.84 | 0.97 |
| KNR3015-150MT | 15±20% | 0.360 | 0.300 | 0.60 | 0.70 | 0.73 | 0.84 |
| KNR3015-220MT | 22±20% | 0.540 | 0.450 | 0.52 | 0.60 | 0.60 | 0.70 |
| KNR3015-260MT | 26±20% | 0.768 | 0.640 | 0.40 | 0.50 | 0.45 | 0.55 |
| KNR3015-330MT | 33±20% | 1.090 | 0.910 | 0.50 | 0.55 | 0.50 | 0.55 |
| KNR3015-470MT | 47±20% | 1.250 | 1.040 | 0.35 | 0.42 | 0.45 | 0.50 |
| KNR3015-560MT | 56±20% | 1.776 | 1.480 | 0.32 | 0.37 | 0.35 | 0.40 |
| KNR3015-680MT | 68±20% | 1.920 | 1.600 | 0.30 | 0.35 | 0.34 | 0.39 |
| KNR3015-101MT | 100±20% | 2.280 | 1.900 | 0.23 | 0.26 | 0.30 | 0.35 |

KNR4012 Series

| Part Number | Inductance | DC Resistance | | Saturation Current | | Heat Rating Current | |
|---------------|------------|---------------|-------|--------------------|------|---------------------|------|
| | @100KHz 1v | Max. | Typ. | Max. | Typ. | Max. | Typ. |
| units | uH | Ω | | A | | A | |
| Symbol | L | DCR | | Isat | | Irms | |
| KNR4012-R33NT | 0.33±30% | 0.031 | 0.026 | 5.50 | 6.30 | 2.90 | 3.35 |
| KNR4012-R47NT | 0.47±30% | 0.032 | 0.027 | 3.50 | 4.20 | 2.90 | 3.20 |
| KNR4012-R82NT | 0.82±30% | 0.042 | 0.035 | 3.00 | 3.50 | 2.50 | 2.90 |
| KNR4012-1R0NT | 1.0±30% | 0.050 | 0.042 | 2.80 | 3.30 | 2.20 | 2.50 |
| KNR4012-1R2NT | 1.2±30% | 0.050 | 0.042 | 2.70 | 3.20 | 2.20 | 2.50 |
| KNR4012-1R5NT | 1.5±30% | 0.050 | 0.042 | 2.10 | 2.20 | 2.20 | 2.50 |
| KNR4012-1R8NT | 1.8±30% | 0.066 | 0.055 | 2.10 | 2.40 | 2.00 | 2.30 |
| KNR4012-2R2MT | 2.2±20% | 0.066 | 0.055 | 1.70 | 1.80 | 2.00 | 2.30 |
| KNR4012-2R7MT | 2.7±20% | 0.084 | 0.070 | 1.90 | 2.20 | 1.70 | 2.00 |
| KNR4012-3R3MT | 3.3±20% | 0.084 | 0.070 | 1.40 | 1.70 | 1.70 | 2.00 |
| KNR4012-3R6MT | 3.6±20% | 0.090 | 0.075 | 1.20 | 1.60 | 1.70 | 2.00 |
| KNR4012-4R3MT | 4.3±20% | 0.108 | 0.090 | 1.20 | 1.50 | 1.50 | 1.80 |
| KNR4012-4R7MT | 4.7±20% | 0.108 | 0.090 | 1.20 | 1.30 | 1.50 | 1.80 |
| KNR4012-5R1MT | 5.1±20% | 0.132 | 0.110 | 1.20 | 1.40 | 1.40 | 1.60 |
| KNR4012-5R6MT | 5.6±20% | 0.132 | 0.110 | 1.10 | 1.40 | 1.40 | 1.60 |
| KNR4012-6R8MT | 6.8±20% | 0.150 | 0.125 | 0.90 | 1.10 | 1.30 | 1.60 |
| KNR4012-100MT | 10±20% | 0.204 | 0.170 | 0.80 | 0.90 | 1.10 | 1.30 |
| KNR4012-120MT | 12±20% | 0.312 | 0.260 | 0.85 | 1.00 | 0.90 | 1.00 |
| KNR4012-150MT | 15±20% | 0.312 | 0.260 | 0.65 | 0.80 | 0.90 | 1.00 |
| KNR4012-180MT | 18±20% | 0.432 | 0.360 | 0.65 | 0.80 | 0.78 | 0.90 |
| KNR4012-220MT | 22±20% | 0.460 | 0.380 | 0.50 | 0.65 | 0.78 | 0.90 |
| KNR4012-270MT | 27±20% | 0.672 | 0.560 | 0.50 | 0.60 | 0.63 | 0.73 |

| | | | | | | | |
|---------------|---------|-------|-------|------|------|------|------|
| KNR4012-330MT | 33±20% | 0.756 | 0.630 | 0.45 | 0.55 | 0.57 | 0.68 |
| KNR4012-360MT | 36±20% | 0.756 | 0.630 | 0.40 | 0.50 | 0.57 | 0.68 |
| KNR4012-390MT | 39±20% | 1.188 | 0.990 | 0.55 | 0.62 | 0.47 | 0.54 |
| KNR4012-470MT | 47±20% | 1.188 | 0.990 | 0.40 | 0.50 | 0.47 | 0.54 |
| KNR4012-560MT | 56±20% | 1.320 | 1.100 | 0.35 | 0.45 | 0.45 | 0.52 |
| KNR4012-680MT | 68±20% | 1.800 | 1.500 | 0.38 | 0.45 | 0.38 | 0.44 |
| KNR4012-820MT | 82±20% | 2.040 | 1.700 | 0.30 | 0.38 | 0.36 | 0.42 |
| KNR4012-101MT | 100±20% | 2.040 | 1.700 | 0.25 | 0.31 | 0.36 | 0.42 |

KNR4018 Series

| Part Number | Inductance | DC Resistance | | Saturation Current | | Heat Rating Current | |
|---------------|------------|---------------|-------|--------------------|------|---------------------|------|
| | @100KHz 1v | Max. | Typ. | Max. | Typ. | Max. | Typ. |
| units | uH | Ω | | A | | A | |
| Symbol | L | DCR | | Isat | | Irms | |
| KNR4018-R33NT | 0.33±30% | 0.016 | 0.012 | 6.50 | 8.00 | 4.20 | 4.70 |
| KNR4018-R47NT | 0.47±30% | 0.020 | 0.017 | 6.50 | 7.20 | 3.50 | 4.00 |
| KNR4018-1R0NT | 1.0±30% | 0.032 | 0.027 | 4.00 | 4.80 | 3.20 | 3.70 |
| KNR4018-1R5NT | 1.5±30% | 0.037 | 0.031 | 3.60 | 4.30 | 2.95 | 3.30 |
| KNR4018-2R2MT | 2.2±20% | 0.050 | 0.042 | 3.00 | 3.40 | 2.20 | 2.90 |
| KNR4018-3R3MT | 3.3±20% | 0.066 | 0.055 | 2.30 | 2.90 | 2.00 | 2.50 |
| KNR4018-4R7MT | 4.7±20% | 0.084 | 0.070 | 2.00 | 2.20 | 1.70 | 2.10 |
| KNR4018-6R8MT | 6.8±20% | 0.118 | 0.098 | 1.60 | 1.80 | 1.45 | 1.70 |
| KNR4018-100MT | 10±20% | 0.180 | 0.150 | 1.30 | 1.50 | 1.20 | 1.50 |
| KNR4018-150MT | 15±20% | 0.252 | 0.210 | 1.10 | 1.20 | 0.85 | 1.20 |
| KNR4018-220MT | 22±20% | 0.348 | 0.290 | 0.90 | 1.10 | 0.70 | 1.00 |
| KNR4018-330MT | 33±20% | 0.552 | 0.460 | 0.70 | 0.90 | 0.55 | 0.82 |
| KNR4018-390MT | 39±20% | 0.612 | 0.510 | 0.70 | 0.83 | 0.69 | 0.80 |
| KNR4018-470MT | 47±20% | 0.744 | 0.620 | 0.57 | 0.70 | 0.91 | 1.01 |
| KNR4018-680MT | 68±20% | 0.972 | 0.810 | 0.53 | 0.62 | 0.68 | 0.73 |
| KNR4018-101MT | 100±20% | 1.560 | 1.300 | 0.49 | 0.57 | 0.40 | 0.47 |
| KNR4018-151MT | 150±20% | 3.120 | 2.600 | 0.41 | 0.47 | 0.28 | 0.33 |
| KNR4018-221MT | 220±20% | 3.840 | 3.200 | 0.33 | 0.38 | 0.25 | 0.29 |
| KNR4018-331MT | 330±20% | 5.880 | 4.900 | 0.26 | 0.31 | 0.20 | 0.23 |

KNR4020 Series

| Part Number | Inductance | DC Resistance | | Saturation Current | | Heat Rating Current | |
|---------------|------------|---------------|-------|--------------------|------|---------------------|------|
| | @100KHz 1v | Max. | Typ. | Max. | Typ. | Max. | Typ. |
| units | uH | Ω | | A | | A | |
| Symbol | L | DCR | | Isat | | Irms | |
| KNR4020-R33NT | 0.33±30% | 0.016 | 0.013 | 7.50 | 8.50 | 3.30 | 4.90 |

KNR4030 Series

| Part Number | Inductance | DC Resistance | | Saturation Current | | Heat Rating Current | |
|---------------|------------|---------------|-------|--------------------|-------|---------------------|------|
| | @100KHz 1v | Max. | Typ. | Max. | Typ. | Max. | Typ. |
| units | uH | Ω | | A | | A | |
| Symbol | L | DCR | | Isat | | Irms | |
| KNR4030-R10NT | 0.10±30% | 0.006 | 0.005 | 17.00 | 18.50 | 4.60 | 6.30 |
| KNR4030-R22NT | 0.22±30% | 0.007 | 0.006 | 11.50 | 12.50 | 3.90 | 5.20 |
| KNR4030-R47NT | 0.47±30% | 0.013 | 0.011 | 8.20 | 9.20 | 4.50 | 5.20 |
| KNR4030-1R0NT | 1.0±30% | 0.017 | 0.014 | 5.60 | 6.50 | 4.10 | 4.80 |
| KNR4030-2R2NT | 2.2±30% | 0.036 | 0.030 | 4.90 | 5.60 | 2.95 | 3.40 |

KNR8030 Series

| Part Number | Inductance | DC Resistance | | Self-resonant Frequency | Saturation Current | | Heat Rating Current | |
|---------------|------------|---------------|-------|-------------------------|--------------------|------|---------------------|------|
| | @100kHz 1V | Max. | Typ. | Min. | Max. | Typ. | Max. | Typ. |
| Units | uH | Ω | | MHz | A | | A | |
| Symbol | L | DCR | | S.R.F | Isat | | Irms | |
| KNR8030-1R0NT | 1.0±30% | 0.012 | 0.009 | 7.80 | 9.00 | 6.20 | 6.20 | 7.30 |
| KNR8030-1R5NT | 1.5±30% | 0.016 | 0.012 | 6.20 | 7.60 | 5.30 | 5.30 | 6.20 |
| KNR8030-2R2MT | 2.2±20% | 0.02 | 0.015 | 4.90 | 6.30 | 4.8 | 4.80 | 5.70 |
| KNR8030-3R3MT | 3.3±20% | 0.025 | 0.019 | 4.20 | 5.10 | 4.3 | 4.30 | 5.10 |
| KNR8030-4R7MT | 4.7±20% | 0.029 | 0.022 | 3.60 | 4.30 | 4.00 | 4.00 | 4.70 |
| KNR8030-6R8MT | 6.8±20% | 0.038 | 0.029 | 3.00 | 3.50 | 3.40 | 3.40 | 3.90 |
| KNR8030-100MT | 10±20% | 0.043 | 0.033 | 2.40 | 2.80 | 3.0 | 3.00 | 3.70 |
| KNR8030-150MT | 15±20% | 0.078 | 0.060 | 2.00 | 2.40 | 2.2 | 2.20 | 2.80 |
| KNR8030-220MT | 22±20% | 0.091 | 0.070 | 1.75 | 2.00 | 1.90 | 1.90 | 2.40 |
| KNR8030-330MT | 33±20% | 0.156 | 0.120 | 1.30 | 1.70 | 1.50 | 1.50 | 2.10 |
| KNR8030-470MT | 47±20% | 0.221 | 0.170 | 1.10 | 1.40 | 1.3 | 1.30 | 1.70 |

KNR8040 Series

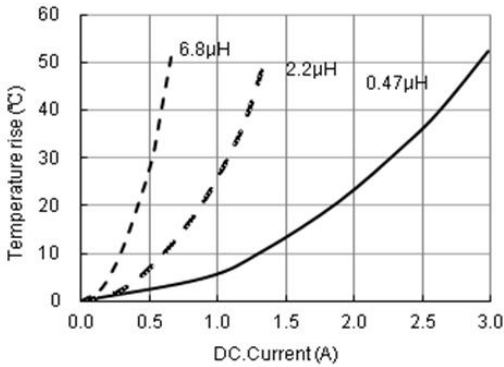
| Part Number | Inductance | DC Resistance | | Self-resonant Frequency | Saturation Current | | Heat Rating Current | |
|---------------|------------|---------------|-------|-------------------------|--------------------|-------|---------------------|------|
| | @100kHz,1V | Max. | Typ. | Min. | Max. | Typ. | Max. | Typ. |
| Units | µH | Ω | | MHz | A | | A | |
| Symbol | L | DCR | | S.R.F | Isat | | Irms | |
| KNR8040-R82NT | 0.82±30% | 0.010 | 0.008 | 94 | 13.80 | 16.00 | 6.30 | 6.90 |
| KNR8040-1R0NT | 1.0±30% | 0.010 | 0.008 | 89 | 9.85 | 14.00 | 6.30 | 6.90 |
| KNR8040-1R2NT | 1.2±30% | 0.013 | 0.010 | 59 | 10.00 | 14.00 | 5.65 | 6.20 |
| KNR8040-1R5NT | 1.5±30% | 0.013 | 0.010 | 67 | 8.15 | 11.00 | 5.65 | 6.20 |
| KNR8040-2R0NT | 2.0±30% | 0.016 | 0.012 | 43 | 9.25 | 10.00 | 5.15 | 5.60 |
| KNR8040-2R2NT | 2.2±30% | 0.016 | 0.012 | 41 | 7.10 | 8.00 | 5.15 | 5.60 |
| KNR8040-3R0NT | 3.0±30% | 0.018 | 0.014 | 32 | 6.10 | 7.00 | 4.70 | 5.20 |
| KNR8040-3R3NT | 3.3±30% | 0.022 | 0.017 | 27 | 6.50 | 7.00 | 4.40 | 4.80 |
| KNR8040-3R6NT | 3.6±30% | 0.022 | 0.017 | 30 | 7.52 | 8.50 | 4.35 | 4.80 |
| KNR8040-3R9NT | 3.9±30% | 0.022 | 0.017 | 26 | 5.75 | 6.50 | 4.35 | 4.80 |
| KNR8040-4R7NT | 4.7±30% | 0.025 | 0.019 | 24 | 5.90 | 6.50 | 4.10 | 4.50 |
| KNR8040-5R1NT | 5.1±30% | 0.025 | 0.019 | 22 | 4.70 | 5.40 | 4.05 | 4.40 |
| KNR8040-5R6NT | 5.6±30% | 0.027 | 0.021 | 24 | 6.00 | 6.90 | 3.85 | 4.20 |
| KNR8040-6R2NT | 6.2±30% | 0.027 | 0.021 | 20 | 4.45 | 5.10 | 3.85 | 4.20 |
| KNR8040-6R8MT | 6.8±20% | 0.031 | 0.024 | 20 | 4.55 | 5.20 | 3.60 | 4.00 |
| KNR8040-8R2MT | 8.2±20% | 0.034 | 0.026 | 17 | 4.20 | 4.80 | 3.45 | 3.80 |
| KNR8040-100MT | 10±20% | 0.038 | 0.029 | 15 | 3.60 | 4.10 | 3.30 | 3.60 |
| KNR8040-120MT | 12±20% | 0.053 | 0.041 | 13 | 3.50 | 4.00 | 2.80 | 3.00 |
| KNR8040-150MT | 15±20% | 0.061 | 0.047 | 12 | 2.95 | 3.40 | 2.60 | 2.80 |
| KNR8040-180MT | 18±20% | 0.069 | 0.053 | 11 | 2.70 | 3.10 | 2.40 | 2.60 |
| KNR8040-220MT | 22±20% | 0.090 | 0.069 | 9.5 | 2.40 | 2.70 | 2.10 | 2.30 |
| KNR8040-270MT | 27±20% | 0.101 | 0.078 | 9.2 | 2.15 | 2.50 | 2.00 | 2.20 |
| KNR8040-330MT | 33±20% | 0.126 | 0.097 | 7.8 | 2.05 | 2.40 | 1.80 | 2.00 |
| KNR8040-360MT | 36±20% | 0.133 | 0.102 | 7.8 | 2.00 | 2.30 | 1.75 | 1.90 |
| KNR8040-390MT | 39±20% | 0.139 | 0.107 | 7.8 | 1.95 | 2.20 | 1.70 | 1.90 |
| KNR8040-430MT | 43±20% | 0.147 | 0.113 | 7.8 | 1.90 | 2.20 | 1.65 | 1.80 |
| KNR8040-470MT | 47±20% | 0.177 | 0.136 | 6.4 | 1.75 | 2.00 | 1.55 | 1.70 |
| KNR8040-510MT | 51±20% | 0.185 | 0.142 | 6.4 | 1.70 | 1.90 | 1.50 | 1.60 |
| KNR8040-620MT | 62±20% | 0.237 | 0.182 | 6.4 | 1.50 | 1.60 | 1.30 | 1.40 |
| KNR8040-680MT | 68±20% | 0.255 | 0.196 | 4.9 | 1.45 | 1.60 | 1.25 | 1.40 |
| KNR8040-750MT | 75±20% | 0.274 | 0.211 | 4.9 | 1.35 | 1.50 | 1.20 | 1.30 |
| KNR8040-820MT | 82±20% | 0.293 | 0.225 | 5.9 | 1.30 | 1.40 | 1.15 | 1.20 |
| KNR8040-910MT | 91±20% | 0.354 | 0.272 | 4.9 | 1.20 | 1.30 | 1.05 | 1.10 |
| KNR8040-101MT | 100±20% | 0.377 | 0.290 | 4.2 | 1.15 | 1.30 | 1.00 | 1.10 |
| KNR8040-121MT | 120±20% | 0.434 | 0.334 | 3.5 | 1.05 | 1.10 | 0.95 | 1.00 |
| KNR8040-151MT | 150±20% | 0.533 | 0.410 | 3.5 | 1.10 | 1.20 | 0.85 | 0.94 |

| | | | | | | | | |
|---------------|---------|-------|-------|-----|------|------|------|------|
| KNR8040-181MT | 180±20% | 0.676 | 0.520 | 3.5 | 0.95 | 1.15 | 0.83 | 0.92 |
| KNR8040-221MT | 220±20% | 0.779 | 0.599 | 3.5 | 0.85 | 0.94 | 0.80 | 0.88 |
| KNR8040-271MT | 270±20% | 0.975 | 0.750 | 3 | 0.80 | 0.95 | 0.75 | 0.78 |
| KNR8040-331MT | 330±20% | 1.156 | 0.889 | 2.8 | 0.68 | 0.75 | 0.64 | 0.70 |
| KNR8040-391MT | 390±20% | 1.118 | 0.860 | 2.2 | 0.53 | 0.68 | 0.60 | 0.70 |
| KNR8040-471MT | 470±20% | 1.625 | 1.260 | 2.1 | 0.60 | 0.70 | 0.50 | 0.60 |
| KNR8040-561MT | 560±20% | 2.327 | 1.790 | 2.3 | 0.50 | 0.60 | 0.47 | 0.54 |
| KNR8040-681MT | 680±20% | 2.652 | 2.040 | 1.7 | 0.50 | 0.60 | 0.45 | 0.50 |
| KNR8040-821MT | 820±20% | 3.640 | 2.800 | 1.7 | 0.53 | 0.60 | 0.35 | 0.40 |

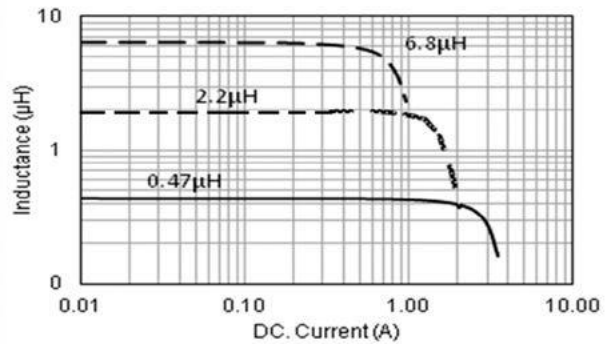
TYPICAL ELECTRICAL CHARACTERISTICS

KNR201610 Series

Temperature vs. DC Current Characteristics

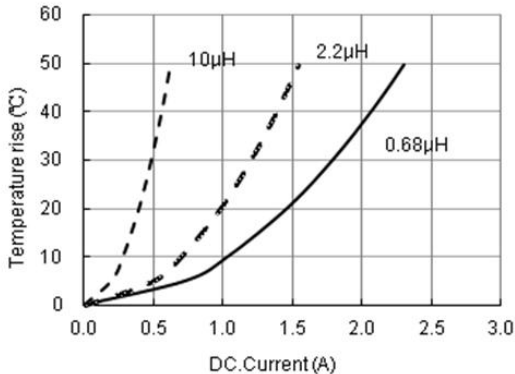


Inductance vs. DC Current Characteristics

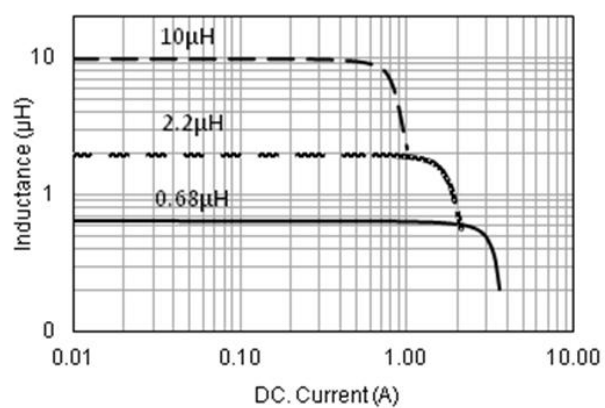


KNR202012 Series

Temperature vs. DC Current Characteristics

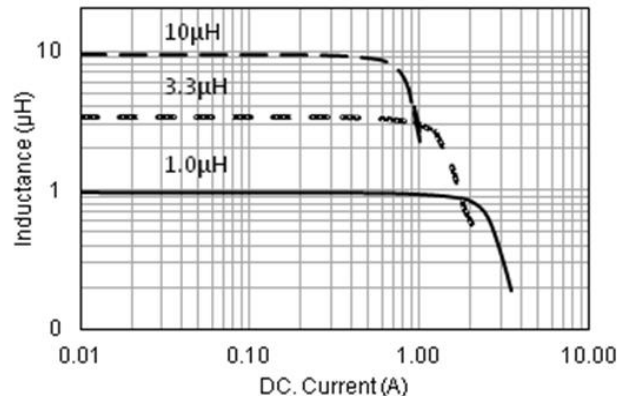
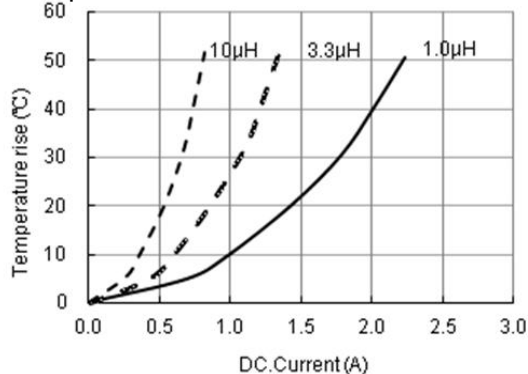


Inductance vs. DC Current Characteristics



KNR252010 Series

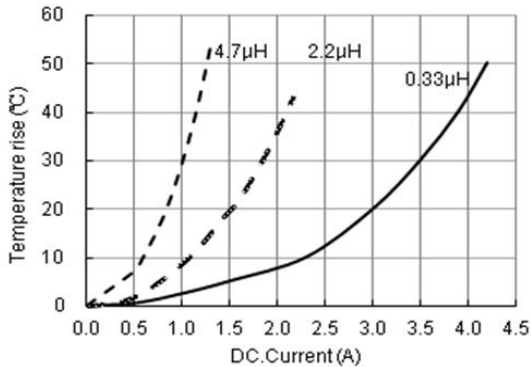
Temperature vs. DC Current Characteristics



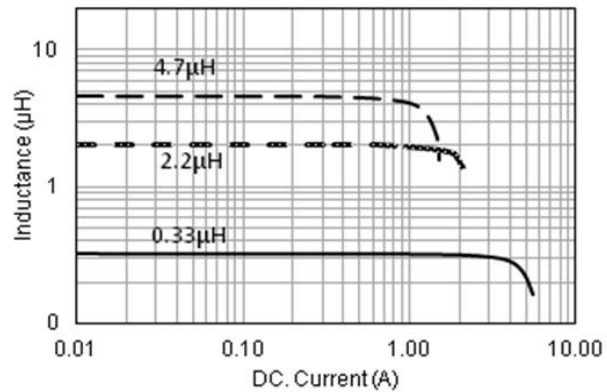
TYPICAL ELECTRICAL CHARACTERISTICS

KNR252012 Series

Temperature vs. DC Current Characteristics

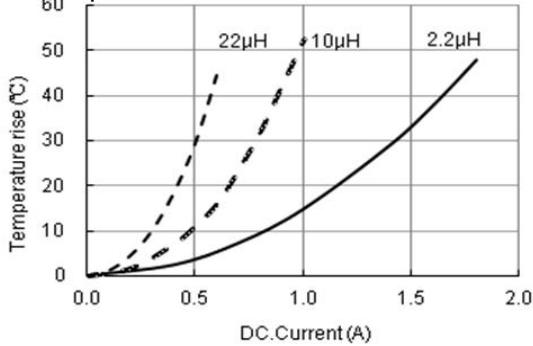


Inductance vs. DC Current Characteristics

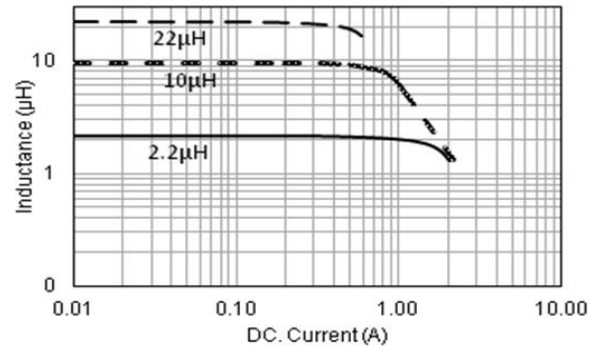


KNR3012 Series

Temperature vs. DC Current Characteristics

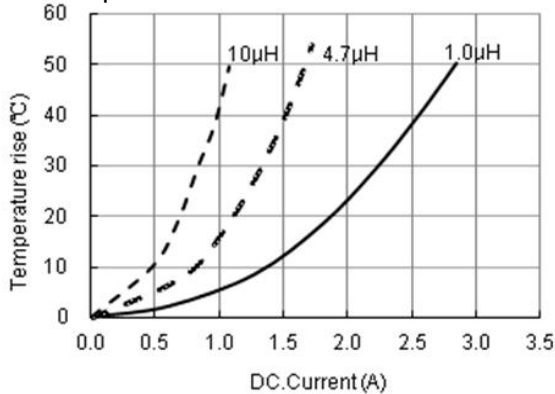


Inductance vs. DC Current Characteristics

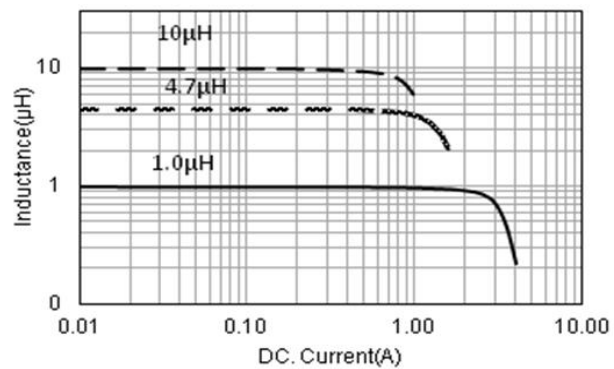


KNR3015 Series

Temperature vs. DC Current Characteristics

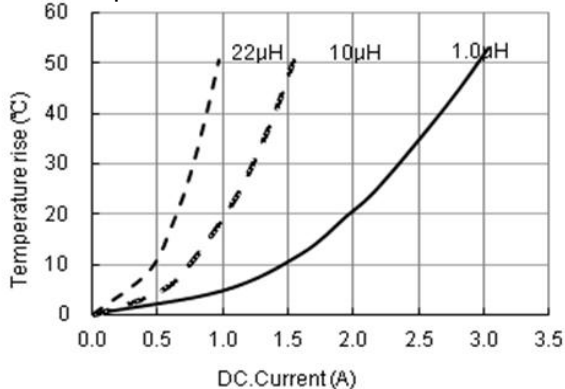


Inductance vs. DC Current Characteristics

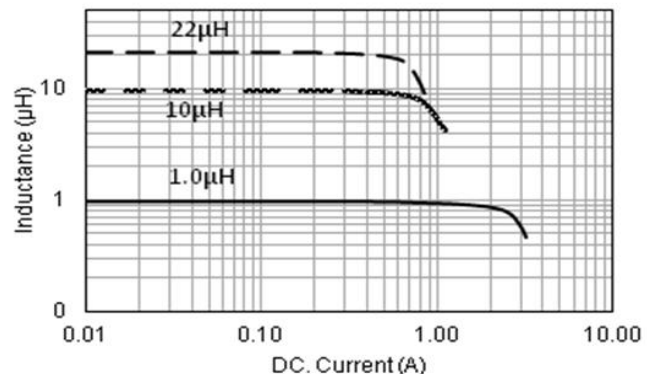


KNR4012 Series

Temperature vs. DC Current Characteristics



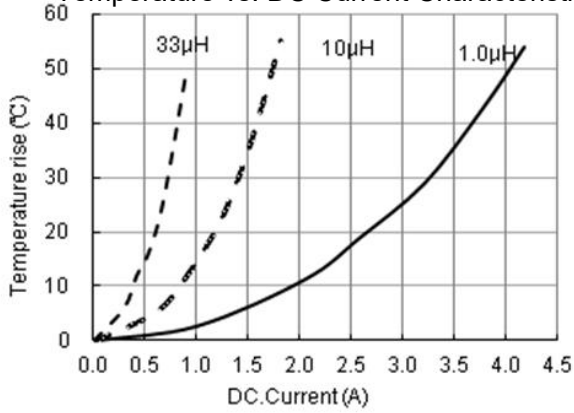
Inductance vs. DC Current Characteristics



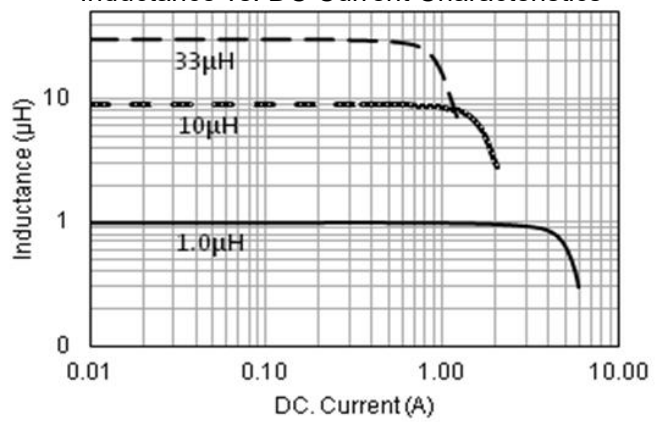
TYPICAL ELECTRICAL CHARACTERISTICS

KNR4018 Series

Temperature vs. DC Current Characteristics

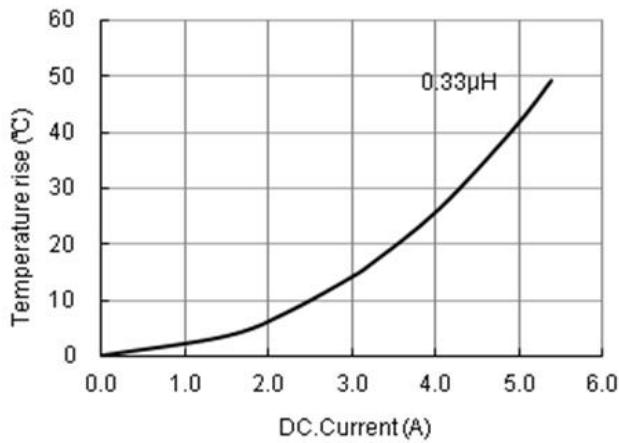


Inductance vs. DC Current Characteristics

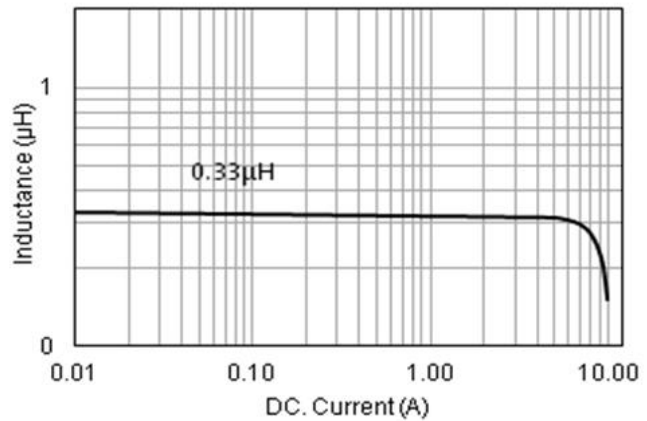


KNR4020 Series

Temperature vs. DC Current Characteristics

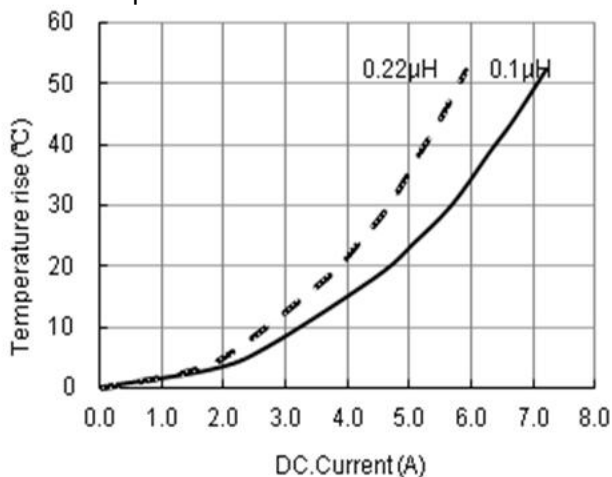


Inductance vs. DC Current Characteristics

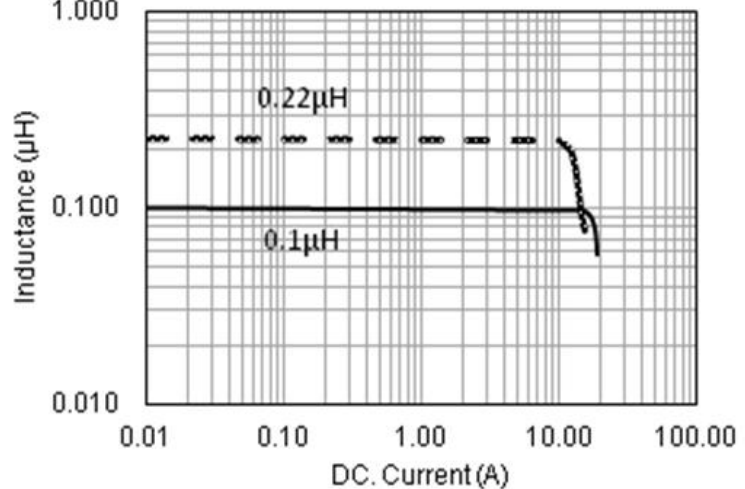


KNR4030 Series

Temperature vs. DC Current Characteristics



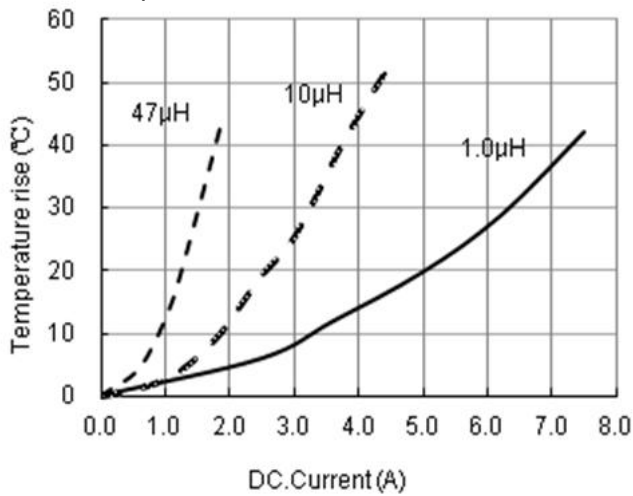
Inductance vs. DC Current Characteristics



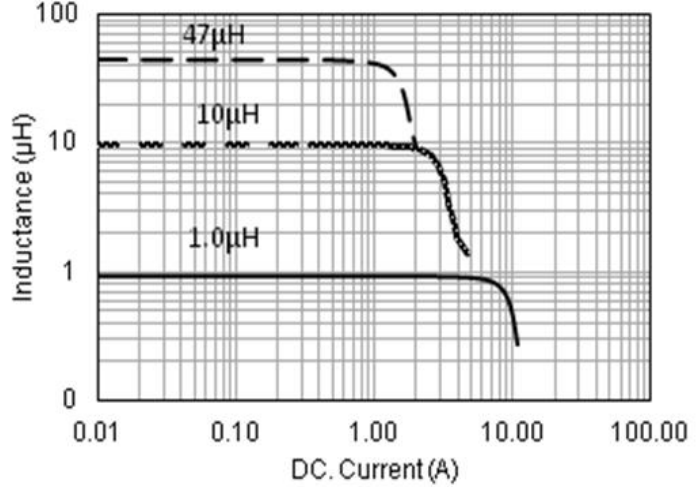
TYPICAL ELECTRICAL CHARACTERISTICS

KNR8030 Series

Temperature vs. DC Current Characteristics

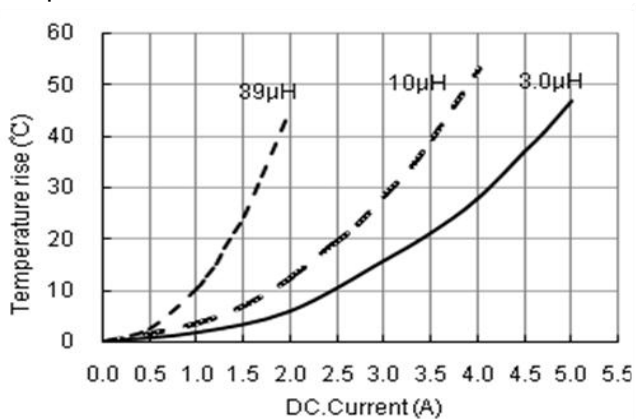


Inductance vs. DC Current Characteristics



KNR8040 Series

Temperature vs. DC Current Characteristics



Inductance vs. DC Current Characteristics

