

Power Inductor

AWVT Series - ISO9001 | ISO14001 | IATF16949



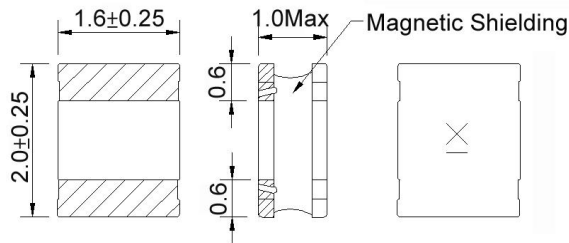
- Power
Circuit
- Shield
- Magnetic
Resin LVx
- Ferrite
- High
Current

■ Part Numbering

| | | | | | | |
|-------|-------------|--------------|----------------------|-----------------|-----------|---------------|
| A | WVT | 00 | 252012 | 1R0 | M | 00 |
| Grade | Series Name | Control Code | Dimensions Code (mm) | Inductance (uH) | Tolerance | Internal Code |
| | | | 201610 2.0x1.6x1.0 | R47 0.47 | M ±20% | |
| | | | 252010 2.5x2.0x1.02 | 1R0 1.0 | T ±30% | |
| | | | 252012 2.5x2.0x1.2 | 101 100 | | |
| | | | 303010 3.0x3.0x1.02 | | | |
| | | | 303012 3.0x3.0x1.2 | | | |
| | | | 404012 4.0x4.0x1.2 | | | |
| | | | 404015 4.0x4.0x1.5 | | | |
| | | | 404026 4.0x4.0x2.6 | | | |
| | | | 505020 5.0x5.0x2.0 | | | |
| | | | 606020 6.0x6.0x2.0 | | | |
| | | | 808040 8.0x8.0x4.0 | | | |

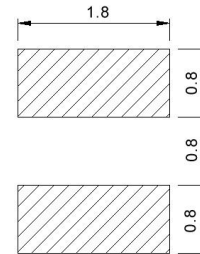
AWVT00201610 Type

■ Dimensions



unit:mm

■ Recommended Land Pattern



unit:mm

■ Electrical Characteristics

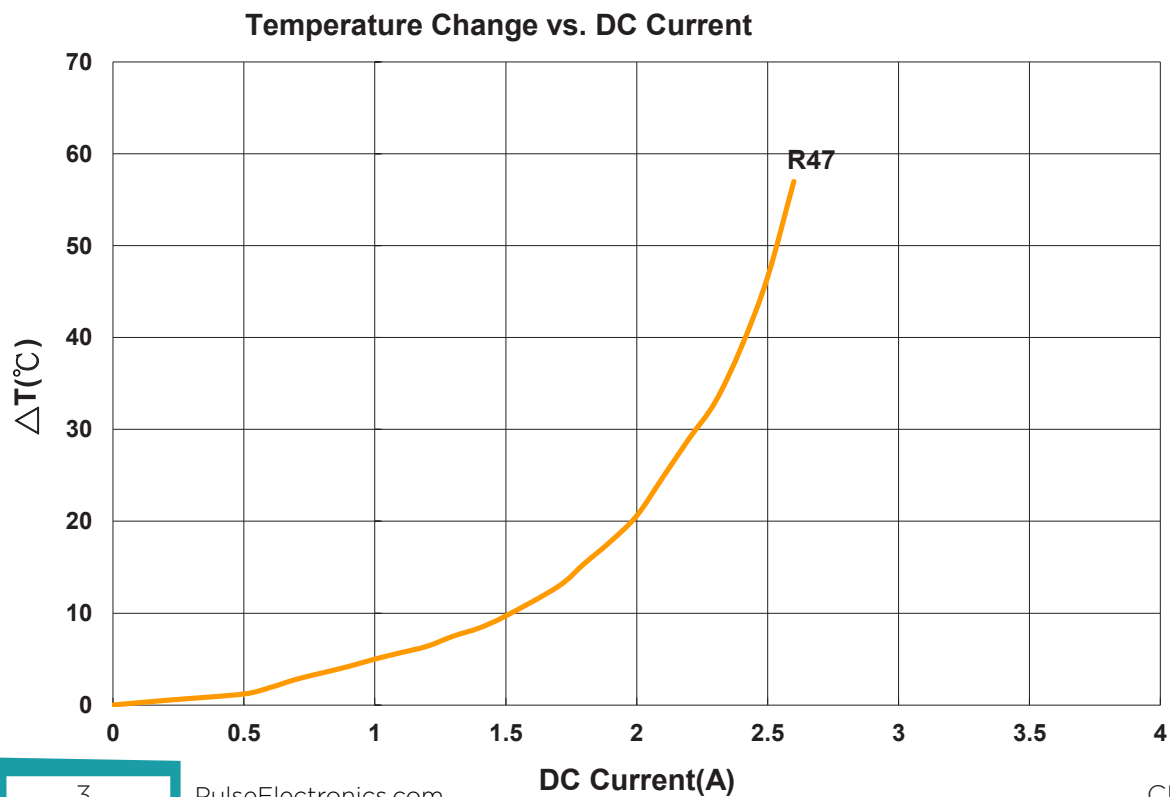
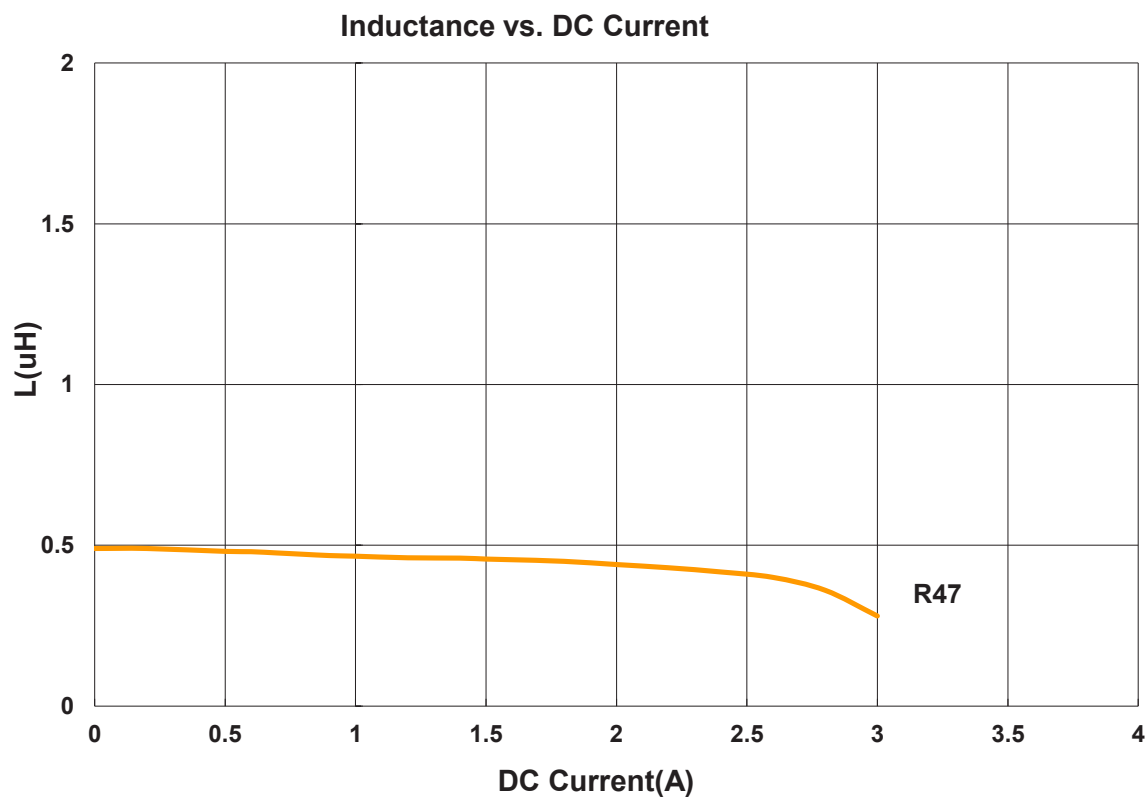
| Part No. | Inductance (uH) | Test Freq. | RDC (Ω)±30% | Isat(A) Typ.(Max) | Irms(A) Typ.(Max) | Tolerance (±%) | Marking |
|--------------------|--------------------|------------|----------------|----------------------|----------------------|-------------------|---------|
| AWVT00201610R47□00 | 0.47 | 1MHz,200mV | 0.072 | 2.40(2.10) | 2.40(2.10) | 20,30 | A |

Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%

- Operating temperature range - 40°C ~ 125°C
- Isat for Inductance drop 30% from its value without current.
- Irms for a 40°C temperature rise from 25°C ambient with current
- Measure Equipment:
L: Agilent HP4287A+Agilent HP16197A
RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent
Isat: Agilent HP4284A
Irms: Agilent HP4284A

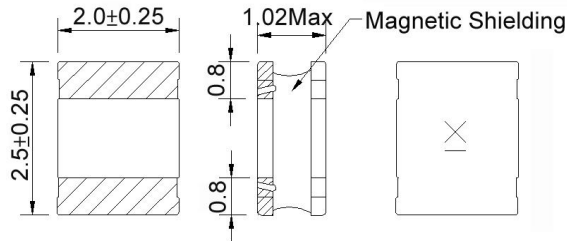
AWVT00201610 Type

■ Characteristics Graph



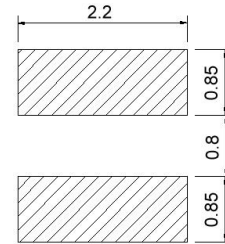
AWVT00252010 Type

■ Dimensions



unit:mm

■ Recommended Land Pattern



unit:mm

■ Electrical Characteristics

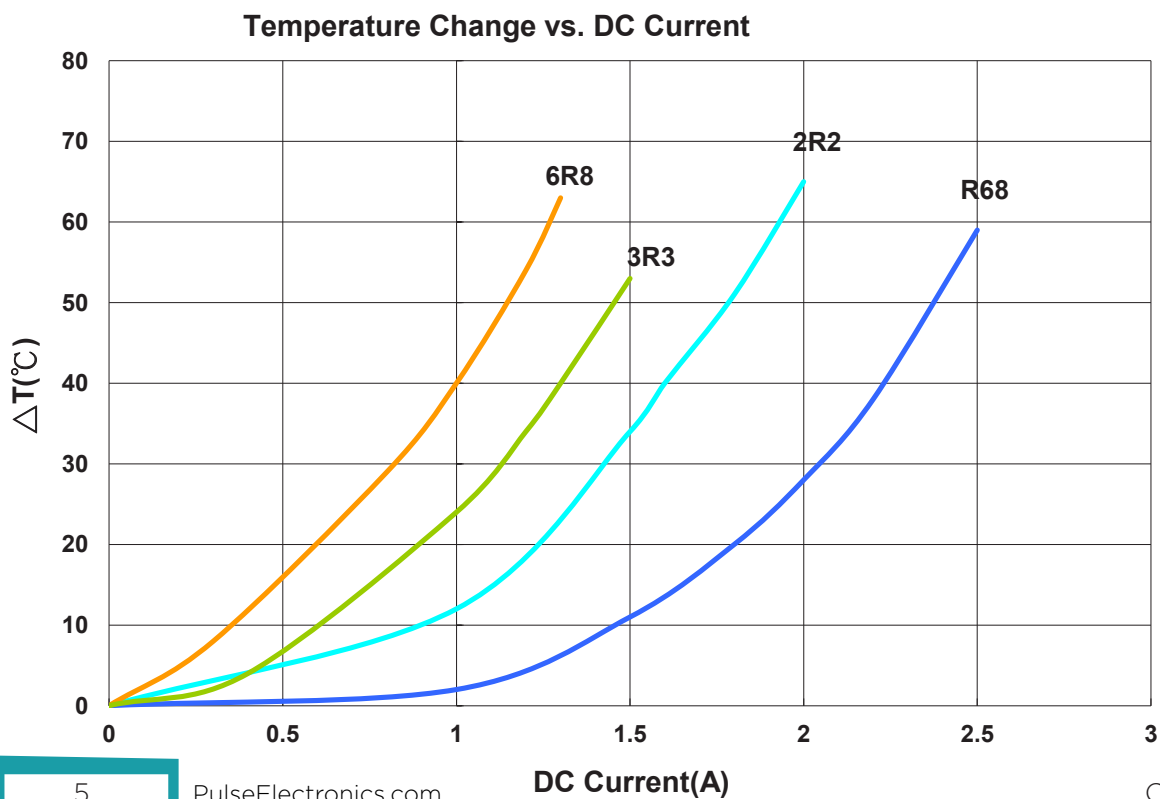
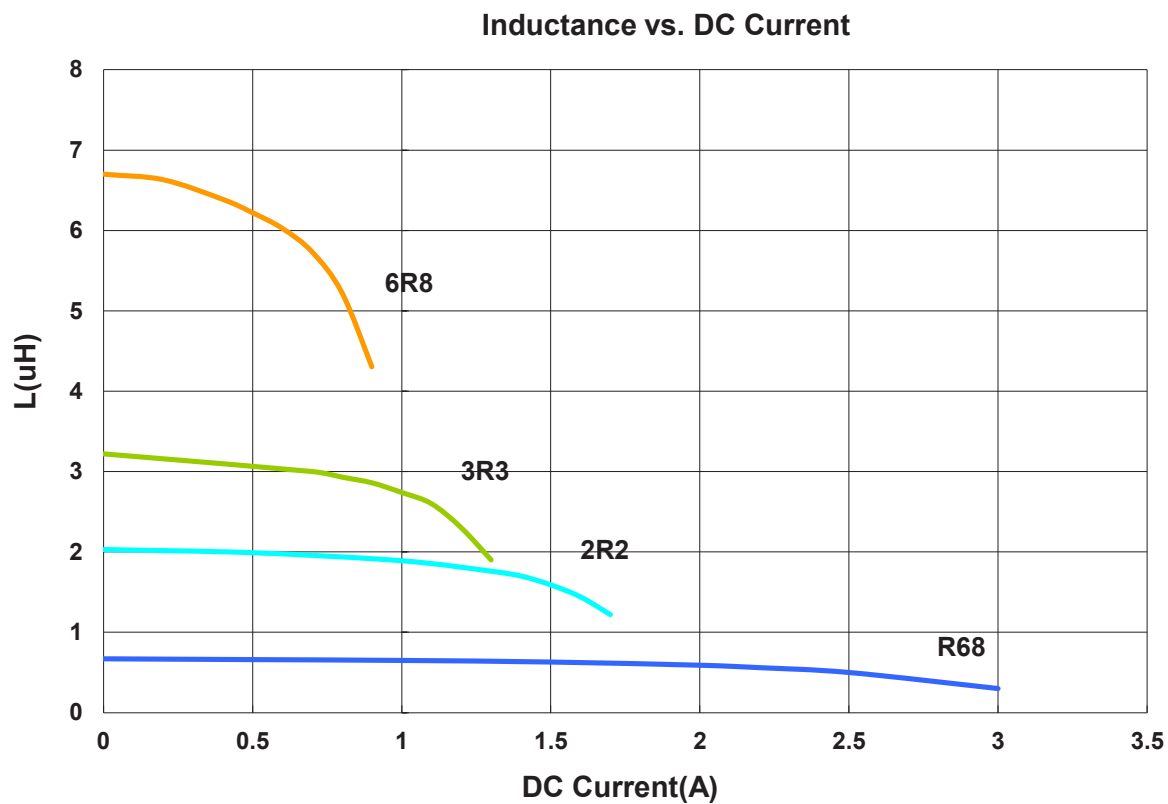
| Part No. | Inductance (uH) | Test Freq. | RDC (Ω)±30% | Isat(A) Typ.(Max) | Irms(A) Typ.(Max) | Tolerance (±%) | Marking |
|--------------------|--------------------|------------|----------------|----------------------|----------------------|-------------------|---------|
| AWVT00252010R68□00 | 0.68 | 1MHz,200mV | 0.050 | 2.40(2.10) | 2.20(1.90) | 20,30 | K |
| AWVT002520102R2□00 | 2.2 | 1MHz,200mV | 0.135 | 1.40(1.20) | 1.50(1.30) | 20,30 | D |
| AWVT002520103R3□00 | 3.3 | 1MHz,200mV | 0.220 | 1.10(1.00) | 1.20(1.00) | 20,30 | E |
| AWVT002520106R8□00 | 6.8 | 1MHz,200mV | 0.435 | 0.78(0.70) | 0.84(0.75) | 20,30 | G |

Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%

- Operating temperature range - 40°C ~ 125°C
- Isat for Inductance drop 30% from its value without current.
- Irms for a 40°C temperature rise from 25°C ambient with current
- Measure Equipment:
L: Agilent HP4287A+Agilent HP16197A
RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent
Isat: Agilent HP4284A
Irms: Agilent HP4284A

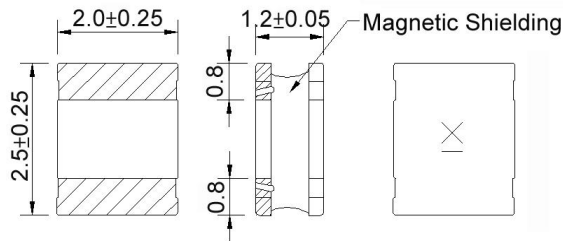
AWVT00252010 Type

Characteristics Graph



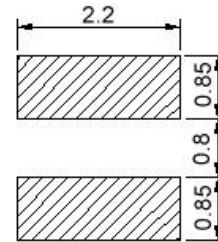
AWVT00252012 Type

■ Dimensions



unit:mm

■ Recommended Land Pattern



unit:mm

■ Electrical Characteristics

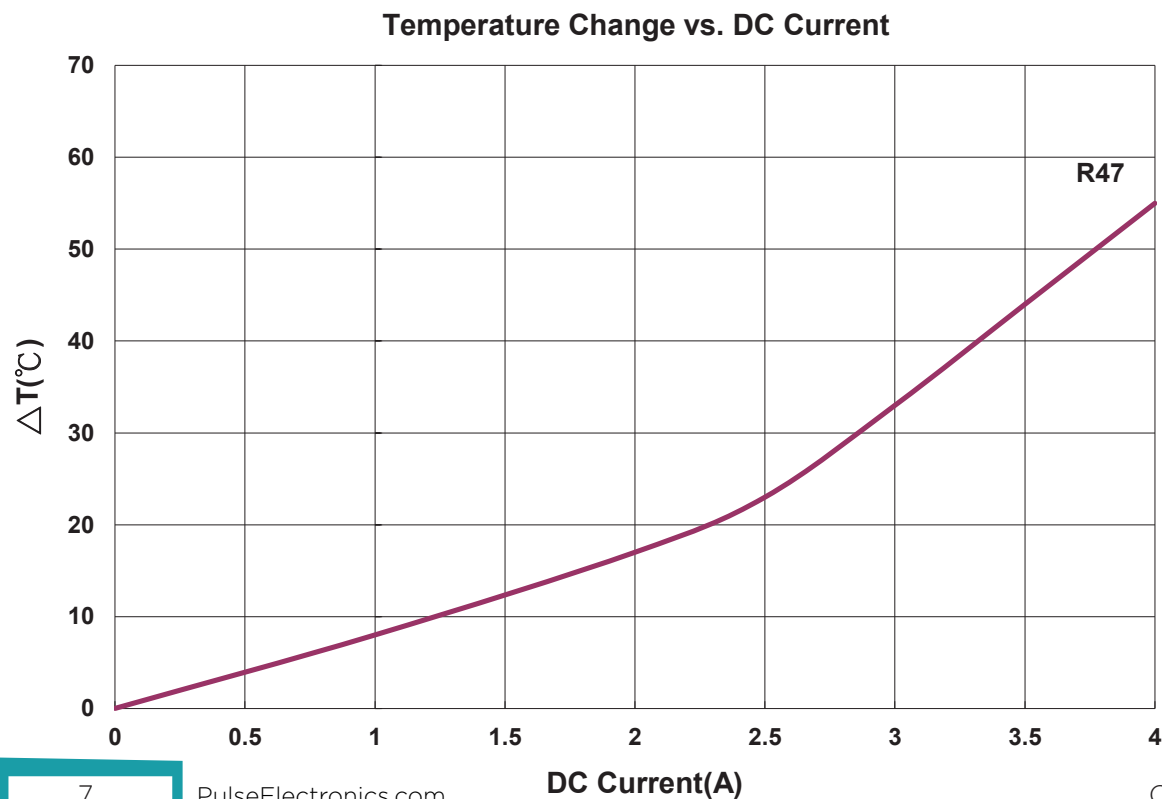
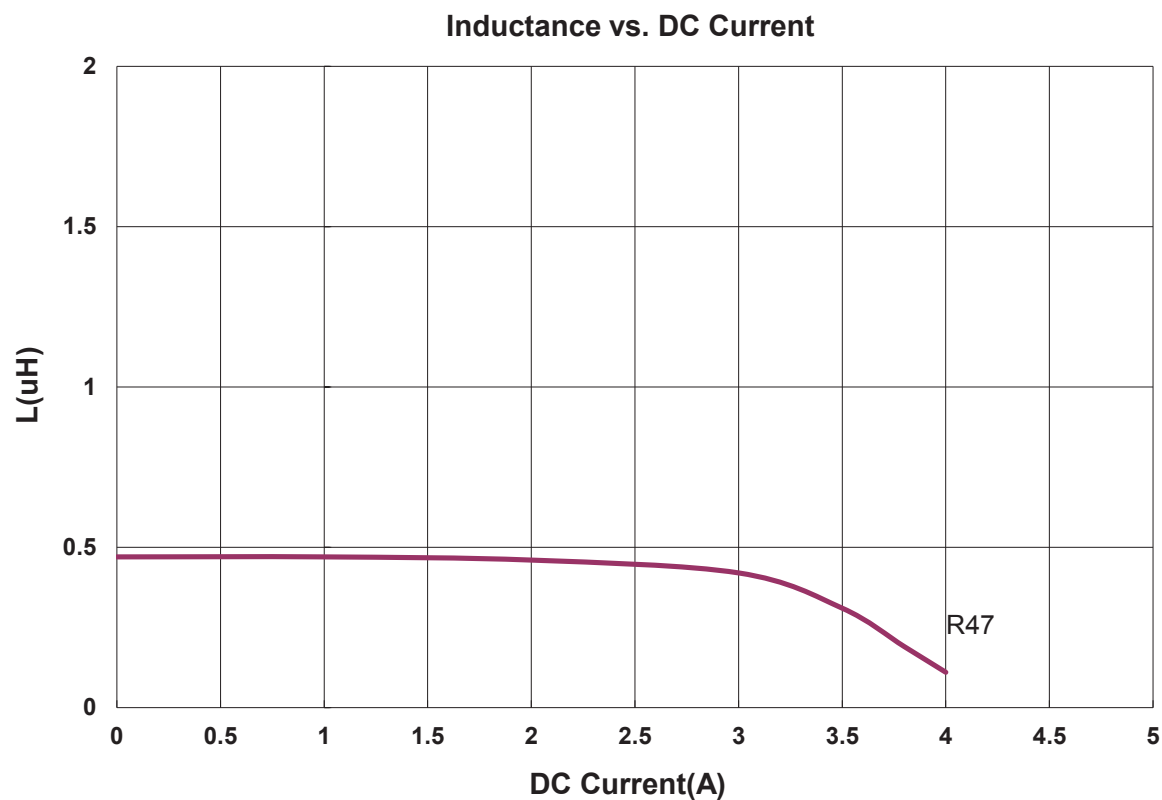
| Part No. | Inductance (uH) | Test Freq. | RDC (Ω)±30% | Isat(A) Typ.(Max) | Irms(A) Typ.(Max) | Tolerance (±%) | Marking |
|--------------------|--------------------|------------|----------------|----------------------|----------------------|-------------------|---------|
| AWVT00252012R47□00 | 0.47 | 1MHz,200mV | 0.027 | 3.70(3.30) | 3.10(2.70) | 20,30 | A |

Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%

1. Operating temperature range - 40°C ~ 125°C
2. Isat for Inductance drop 30% from its value without current.
3. Irms for a 40°C temperature rise from 25°C ambient with current
4. Measure Equipment:
L: Agilent HP4287A+Agilent HP16197A
RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent
Isat: Agilent HP4284A
Irms: Agilent HP4284A

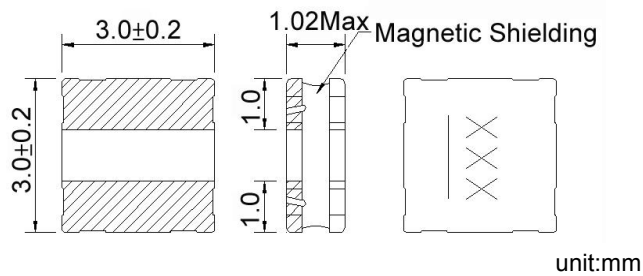
AWVT00252012 Type

■ Characteristics Graph

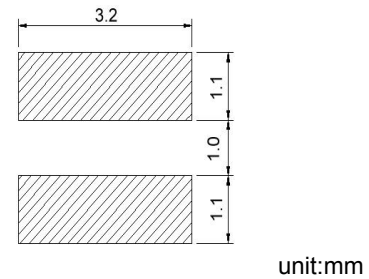


AWVT00303010 Type

■ Dimensions



■ Recommended Land Pattern



■ Electrical Characteristics

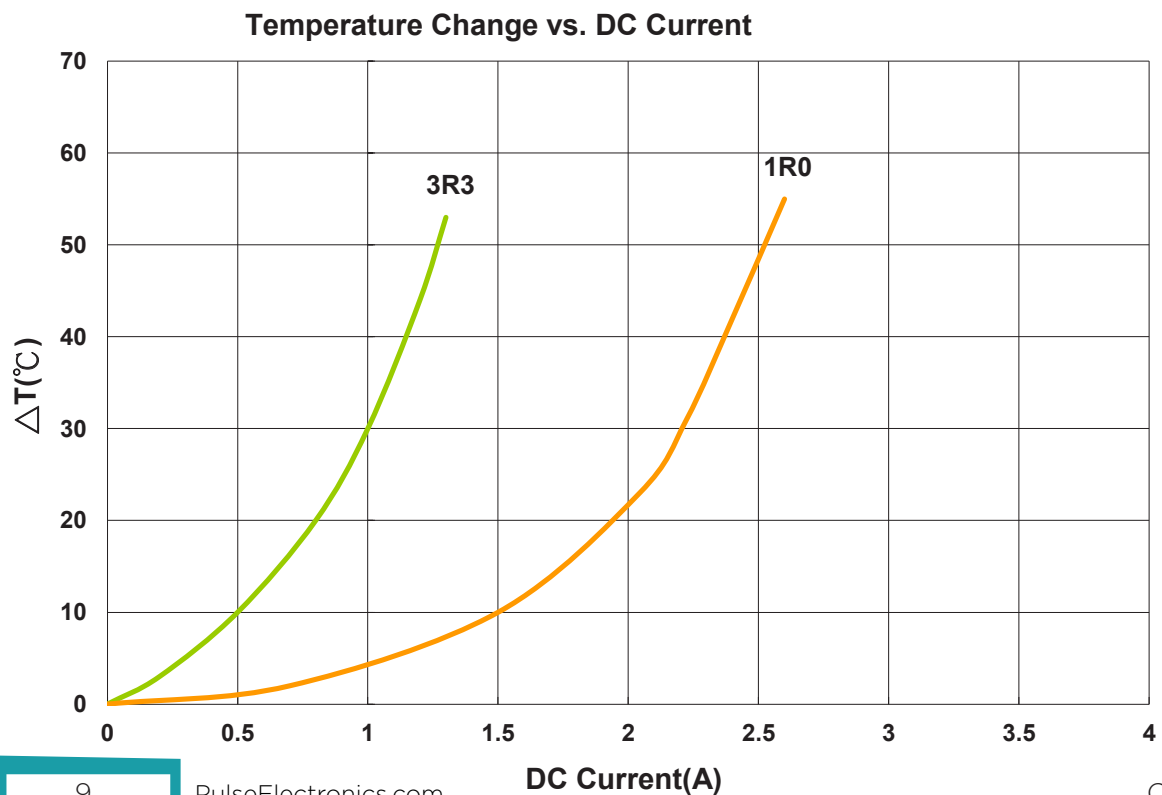
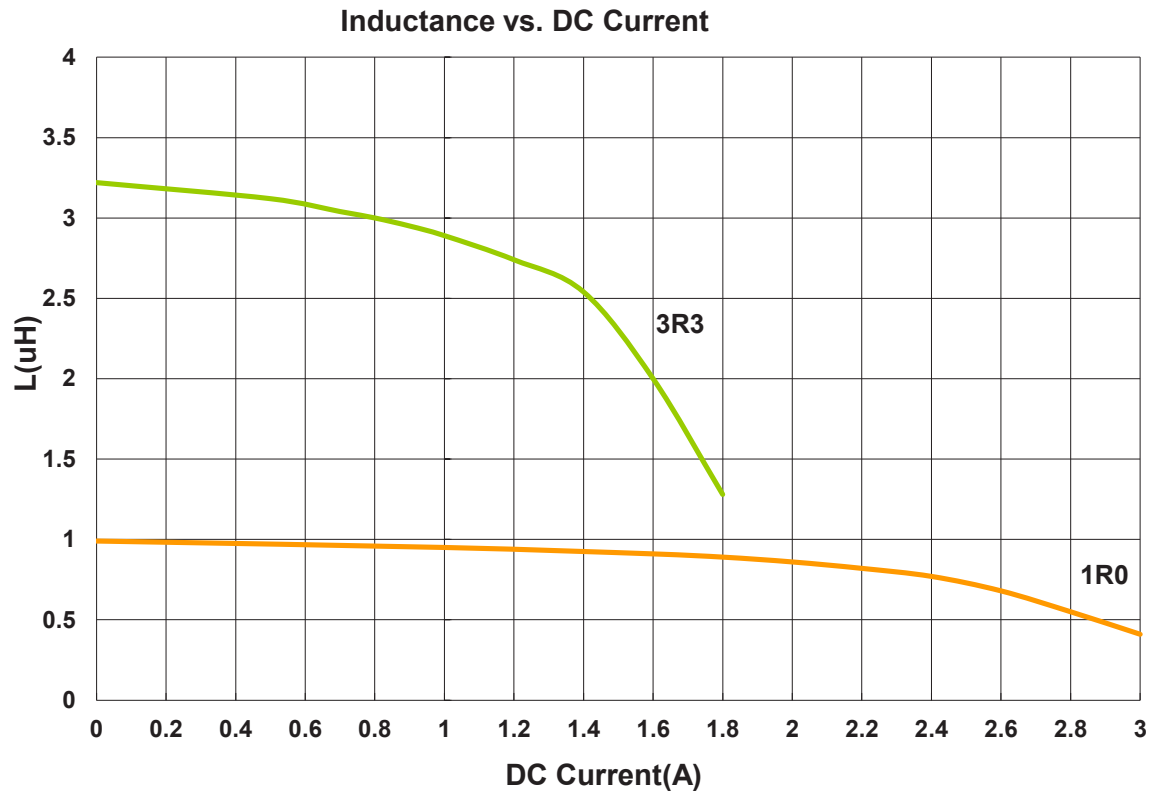
| Part No. | Inductance (uH) | Test Freq. | RDC (Ω)±30% | Isat(A) Typ.(Max) | Irms(A) Typ.(Max) | Tolerance (±%) | Marking |
|--------------------|--------------------|------------|----------------|----------------------|----------------------|-------------------|---------|
| AWVT003030101R0□00 | 1.0 | 1MHz,200mV | 0.063 | 2.40(2.10) | 2.30(2.00) | 20,30 | 1R0 |
| AWVT003030103R3□00 | 3.3 | 1MHz,200mV | 0.165 | 1.20(1.00) | 1.10(0.99) | 20,30 | 3R3 |

Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%

- Operating temperature range - 40°C ~ 125°C
- Isat for Inductance drop 30% from its value without current.
- Irms for a 40°C temperature rise from 25°C ambient with current
- Measure Equipment:
L: Agilent HP4287A+Agilent HP16197A
RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent
Isat: Agilent HP4284A
Irms: Agilent HP4284A

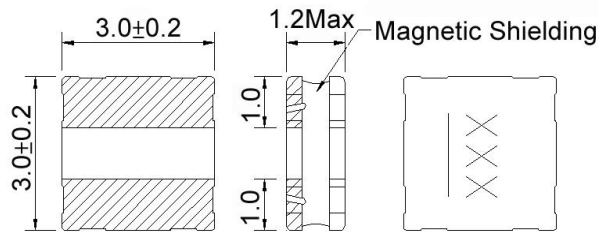
AWVT00303010 Type

Characteristics Graph



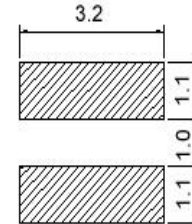
AWVT00303012 Type

■ Dimensions



unit:mm

■ Recommended Land Pattern



unit:mm

■ Electrical Characteristics

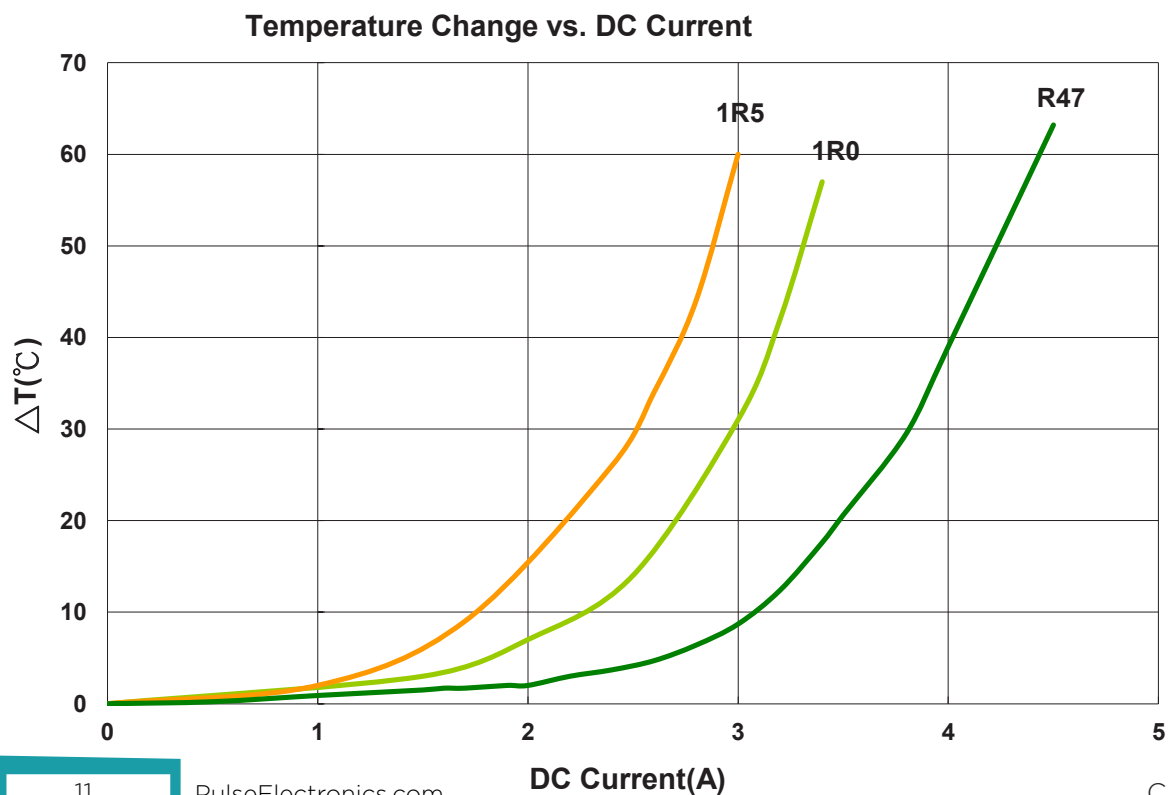
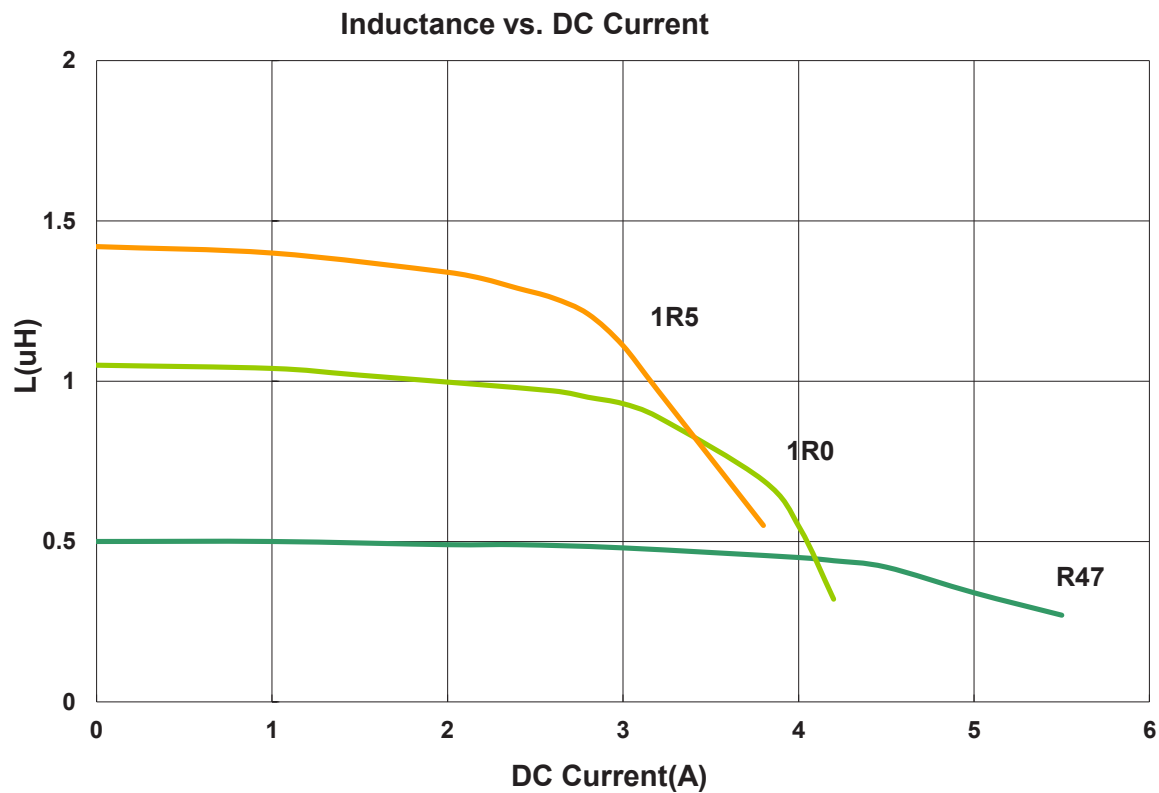
| Part No. | Inductance (uH) | Test Freq. | RDC (Ω)±30% | Isat(A) Typ.(Max) | Irms(A) Typ.(Max) | Tolerance (±%) | Marking |
|--------------------|--------------------|------------|----------------|----------------------|----------------------|-------------------|---------|
| AWVT00303012R47□00 | 0.47 | 1MHz,200mV | 0.032 | 4.3(3.87) | 4.0(3.60) | 20,30 | R47 |
| AWVT003030121R0□00 | 1 | 1MHz,200mV | 0.06 | 3.1(2.79) | 3.0(2.70) | 20,30 | 1R0 |
| AWVT003030121R5□00 | 1.5 | 1MHz,200mV | 0.072 | 2.7(2.43) | 2.6(2.34) | 20,30 | 1R5 |

Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%

- Operating temperature range - 40°C ~ 125°C
- Isat for Inductance drop 30% from its value without current.
- Irms for a 40°C temperature rise from 25°C ambient with current
- Measure Equipment:
L: Agilent HP4287A+Agilent HP16197A
RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent
Isat: Agilent HP4284A
Irms: Agilent HP4284A

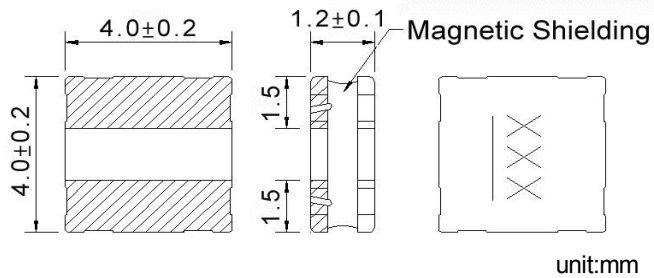
AWVT00303012 Type

Characteristics Graph

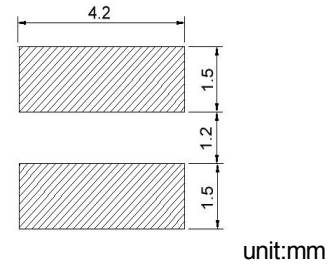


AWVT00404012 Type

■ Dimensions



■ Recommended Land Pattern



■ Electrical Characteristics

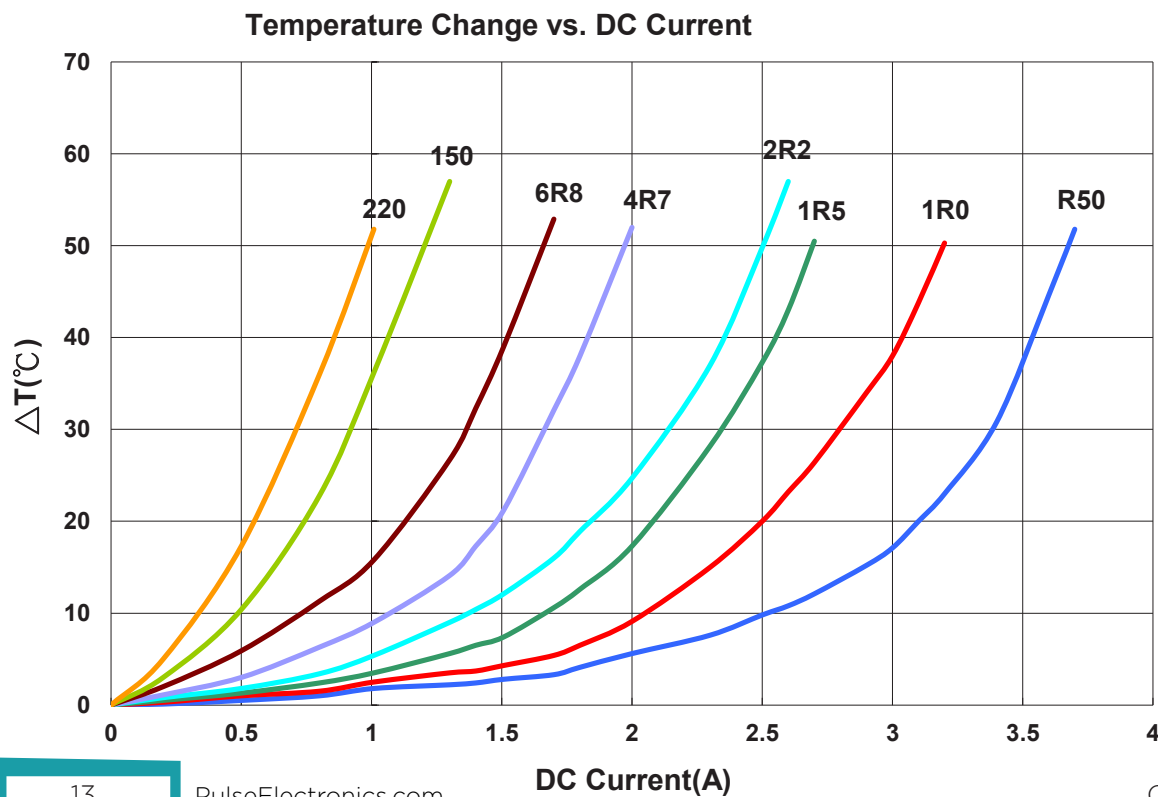
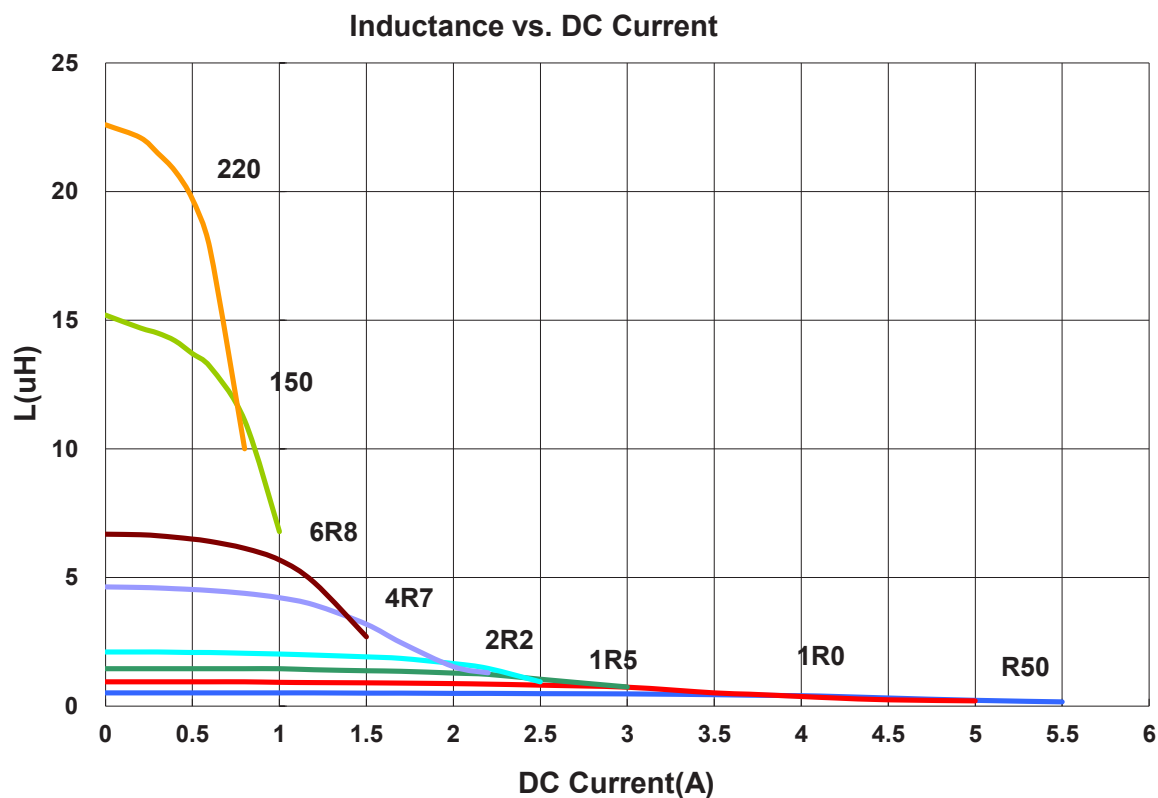
| Part No. | Inductance (uH) | Test Freq. | RDC (Ω)±30% | Isat(A) Typ.(Max) | Irms(A) Typ.(Max) | Tolerance (±%) | Marking |
|--------------------|--------------------|------------|----------------|----------------------|----------------------|-------------------|---------|
| AWVT00404012R50□00 | 0.5 | 1MHz,200mV | 0.030 | 3.90(3.50) | 3.5(3.10) | 20,30 | R50 |
| AWVT004040121R0□00 | 1.0 | 1MHz,200mV | 0.040 | 2.90(2.60) | 3.0(2.70) | 20,30 | 1R0 |
| AWVT004040121R5□00 | 1.5 | 1MHz,200mV | 0.051 | 2.30(2.00) | 2.5(2.20) | 20,30 | 1R5 |
| AWVT004040122R2□00 | 2.2 | 1MHz,200mV | 0.060 | 1.90(1.70) | 2.3(2.00) | 20,30 | 2R2 |
| AWVT004040124R7□00 | 4.7 | 1MHz,200mV | 0.094 | 1.30(1.10) | 1.8(1.60) | 20,30 | 4R7 |
| AWVT004040126R8□00 | 6.8 | 1MHz,200mV | 0.135 | 1.00(0.95) | 1.5(1.30) | 20,30 | 6R8 |
| AWVT00404012150□00 | 15 | 1MHz,200mV | 0.260 | 0.78(0.70) | 1.0(0.90) | 20,30 | 150 |
| AWVT00404012220□00 | 22 | 1MHz,200mV | 0.390 | 0.62(0.55) | 0.8(0.72) | 20,30 | 220 |

Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%

- Operating temperature range - 40°C ~ 125°C
- Isat for Inductance drop 30% from its value without current
- Irms for a 40°C temperature rise from 25°C ambient with current
- Measure Equipment:
L: Agilent HP4284A+Agilent HP42841A
RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent
Isat: Agilent HP4284A
Irms: Agilent HP4284A

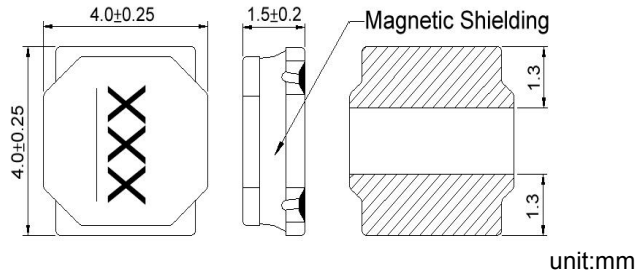
AWVT00404012 Type

Characteristics Graph

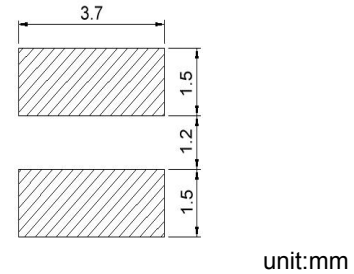


AWVT00404015 Type

■ Dimensions



■ Recommended Land Pattern



■ Electrical Characteristics

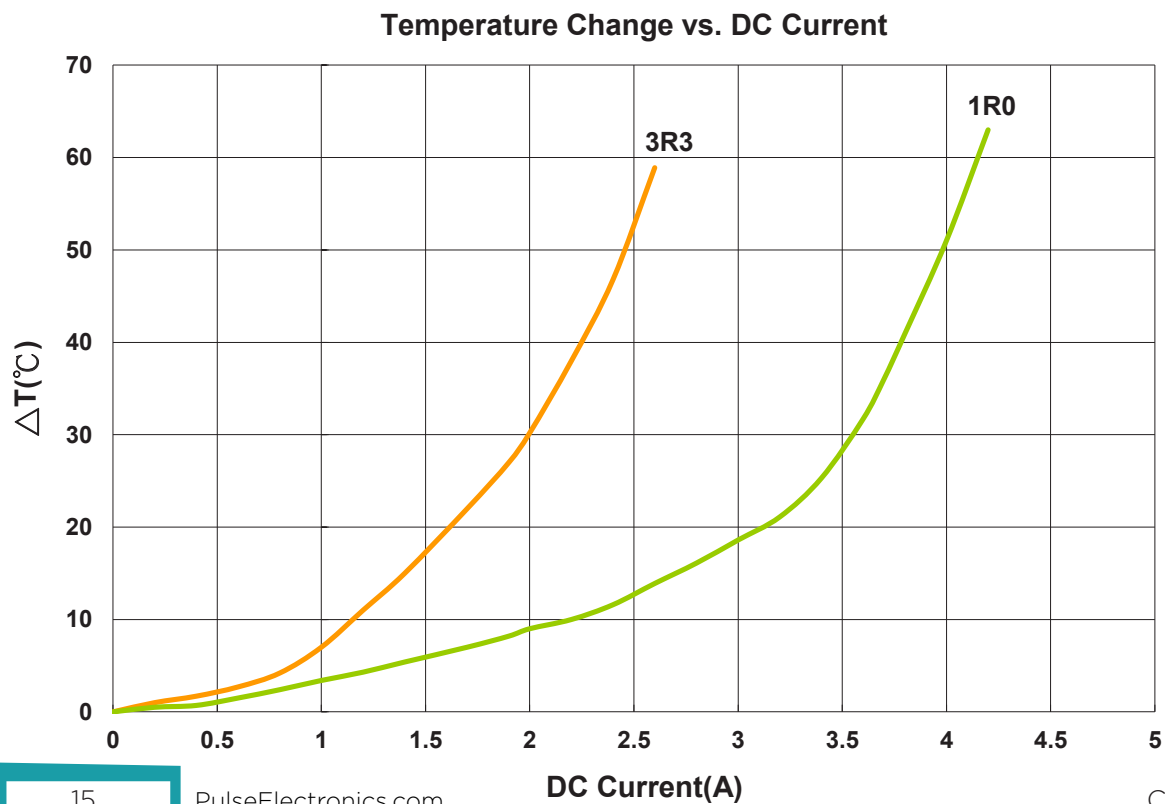
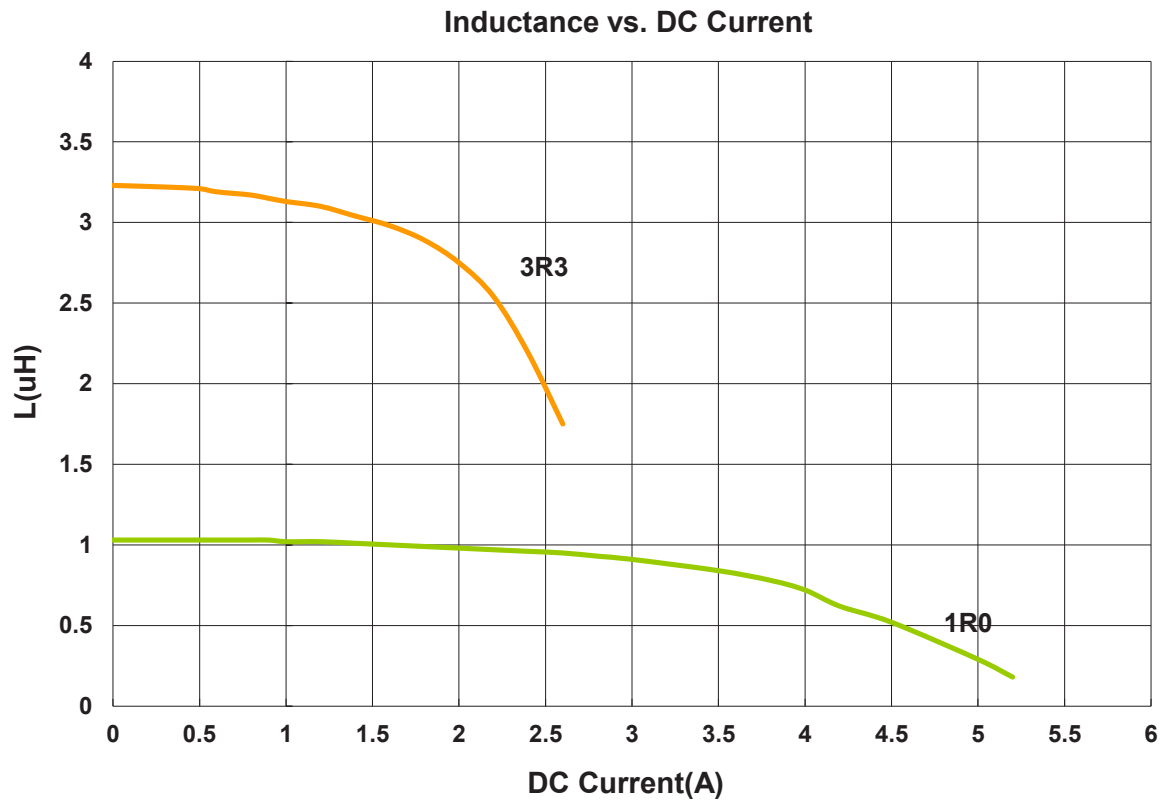
| Part No. | Inductance (uH) | Test Freq. | RDC (Ω)±30% | Isat(A) Typ.(Max) | Irms(A) Typ.(Max) | Tolerance (±%) | Marking |
|--------------------|--------------------|------------|----------------|----------------------|----------------------|-------------------|---------|
| AWVT004040151R0□00 | 1.0 | 1MHz,200mV | 0.034 | 3.6(3.20) | 3.7(3.30) | 20,30 | 1R0 |
| AWVT004040153R3□00 | 3.3 | 1MHz,200mV | 0.080 | 2.0(1.80) | 2.2(1.90) | 20,30 | 3R3 |

Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%

- Operating temperature range - 40°C ~ 125°C
- Isat for Inductance drop 30% from its value without current
- Irms for a 40°C temperature rise from 25°C ambient with current
- Measure Equipment:
L: Agilent HP4284A+Agilent HP42841A
RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent
Isat: Agilent HP4284A
Irms: Agilent HP4284A

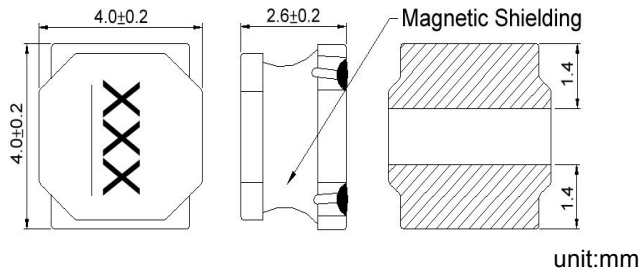
AWVT00404015 Type

Characteristics Graph

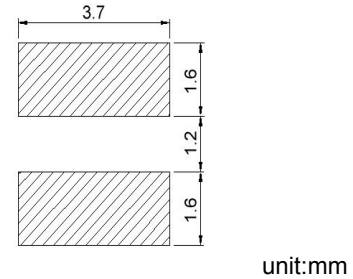


AWVT00404026 Type

■ Dimensions



■ Recommended Land Pattern



■ Electrical Characteristics

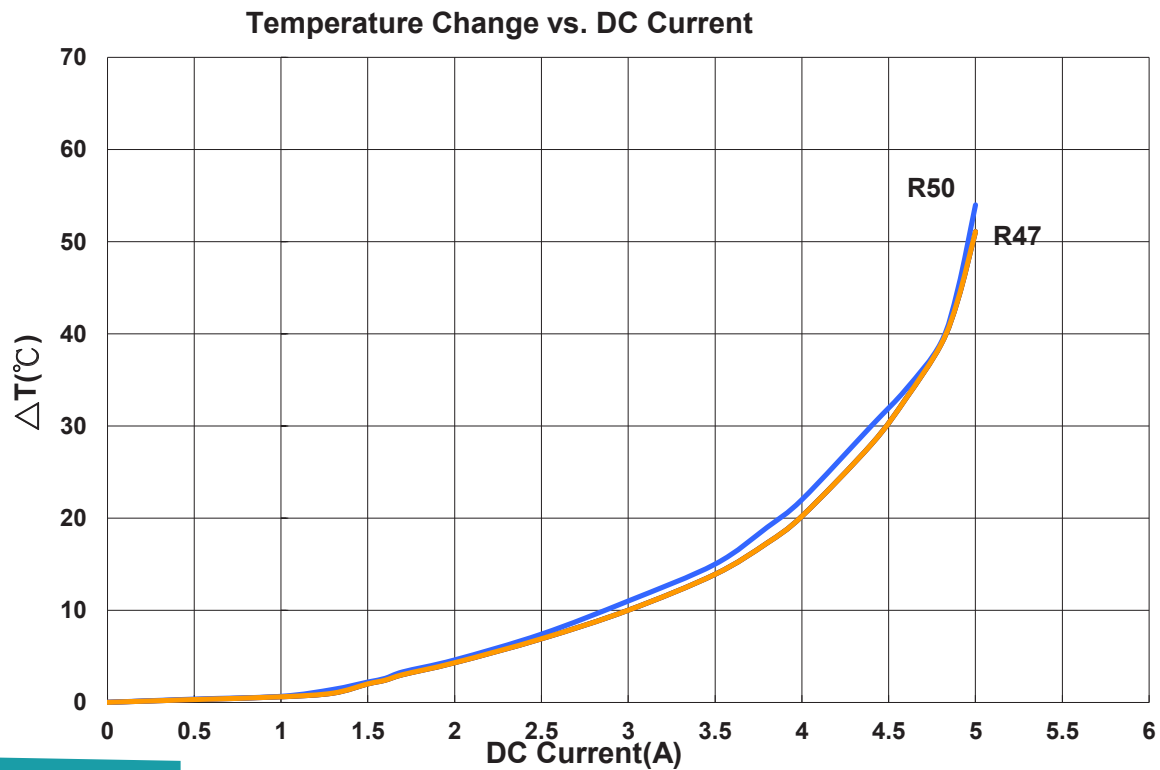
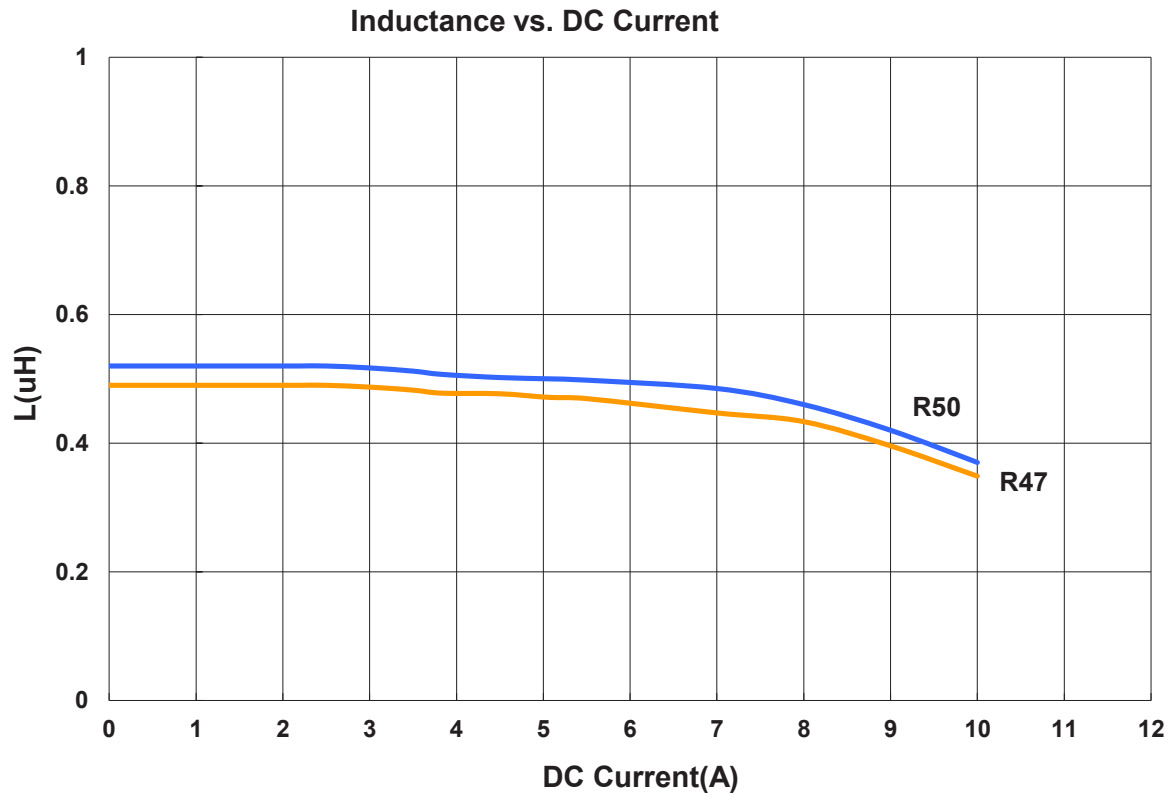
| Part No. | Inductance (uH) | Test Freq. | RDC (Ω)±30% | Isat(A) Typ.(Max) | Irms(A) Typ.(Max) | Tolerance (±%) | Marking |
|--------------------|--------------------|------------|----------------|----------------------|----------------------|-------------------|---------|
| AWVT00404026R47□00 | 0.47 | 100kHz, 1V | 0.024 | 7.20(6.4) | 4.80(4.3) | 20,30 | R47 |
| AWVT00404026R50□00 | 0.50 | 100kHz, 1V | 0.024 | 7.20(6.4) | 4.80(4.3) | 20,30 | R50 |

Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%

- Operating temperature range - 40°C ~ 125°C
- Isat for Inductance drop 30% from its value without current
- Irms for a 40°C temperature rise from 25°C ambient with current
- Measure Equipment:
L: Agilent HP4284A+Agilent HP42841A
RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent
Isat: Agilent HP4284A
Irms: Agilent HP4284A

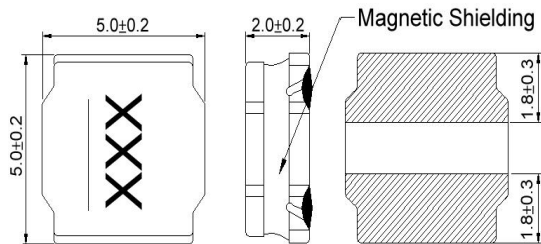
AWVT00404026 Type

■ Characteristics Graph



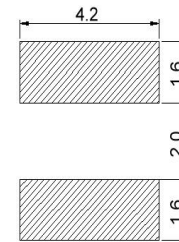
AWVT00505020 Type

■ Dimensions



unit:mm

■ Recommended Land Pattern



unit:mm

■ Electrical Characteristics

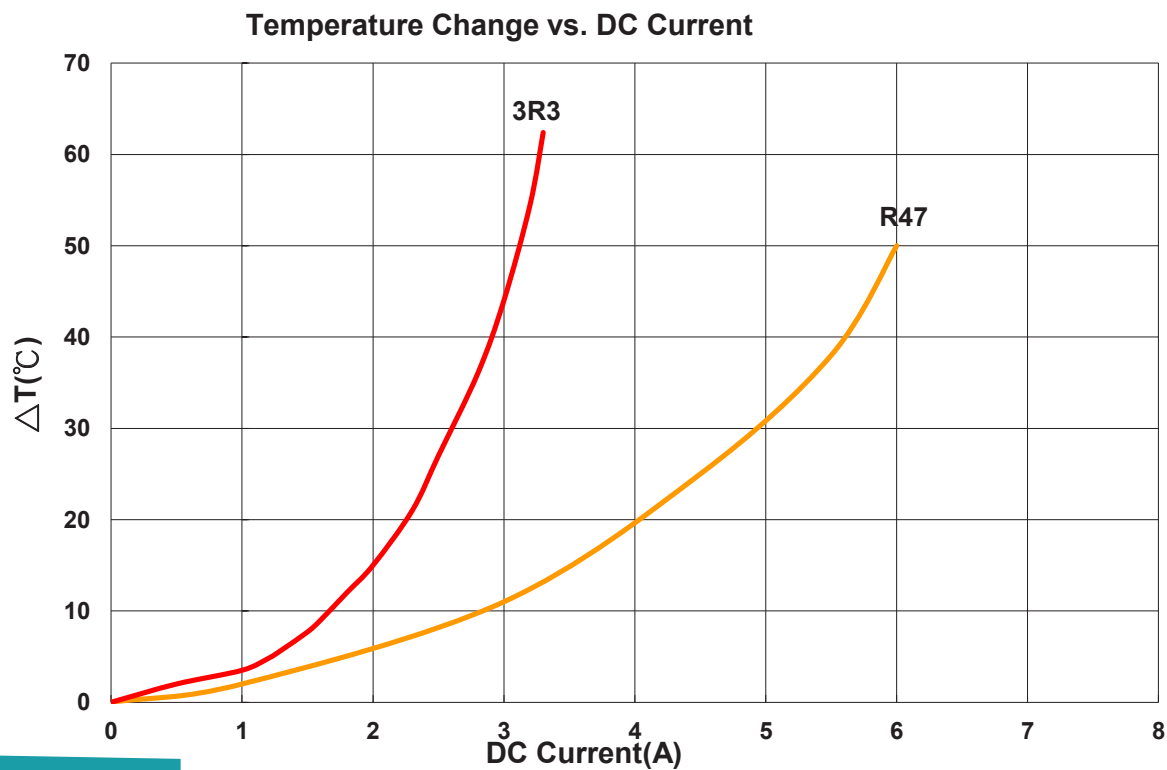
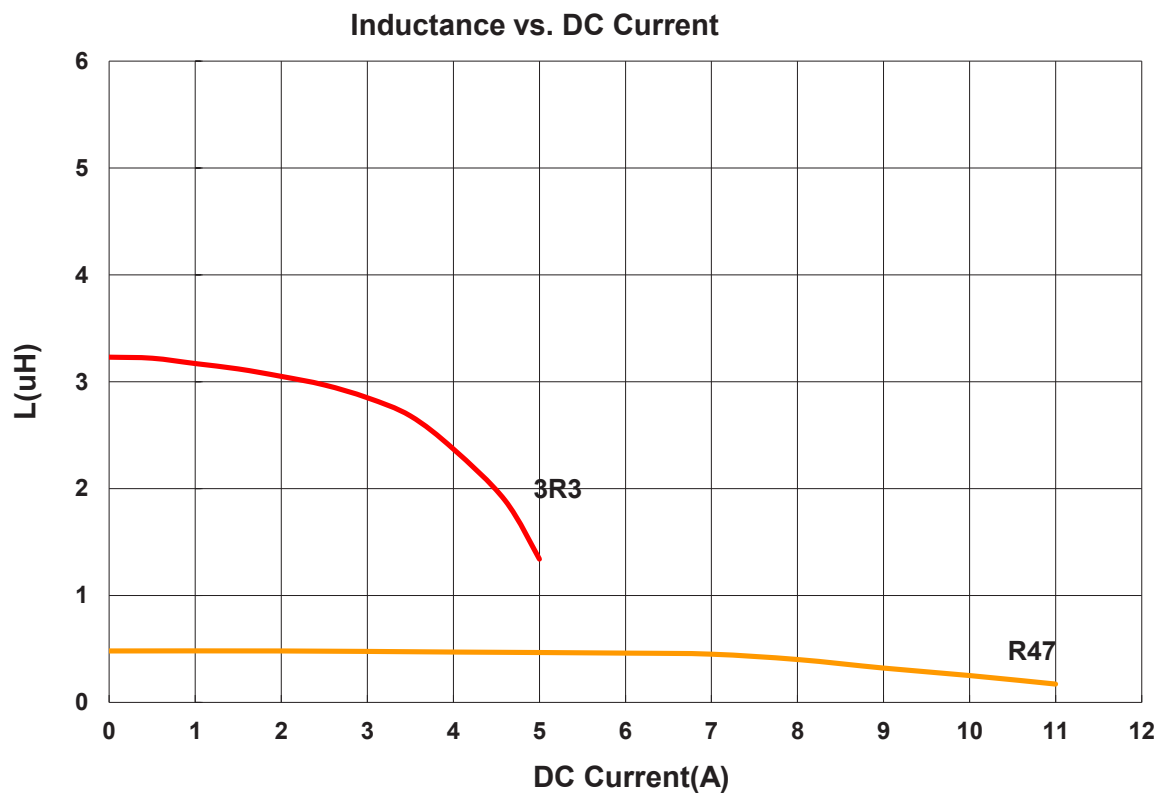
| Part No. | Inductance (uH) | Test Freq. | RDC (Ω)±30% | Isat(A) Typ.(Max) | Irms(A) Typ.(Max) | Tolerance (±%) | Marking |
|--------------------|--------------------|------------|----------------|----------------------|----------------------|-------------------|---------|
| AWVT00505020R47□00 | 0.47 | 100kHz, 1V | 0.0135 | 8.0(7.2) | 5.5(5.0) | 20,30 | R47 |
| AWVT005050203R3□00 | 3.3 | 100kHz, 1V | 0.050 | 3.4(3.00) | 2.7(2.40) | 20,30 | 3R3 |

Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%

- Operating temperature range - 40°C ~ 125°C
- Isat for Inductance drop 30% from its value without current
- Irms for a 40°C temperature rise from 25°C ambient with current
- Measure Equipment:
L: Agilent HP4284A+Agilent HP42841A
RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent
Isat: Agilent HP4284A
Irms: Agilent HP4284A

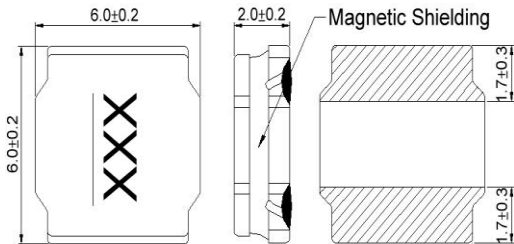
AWVT00505020 Type

■ Characteristics Graph



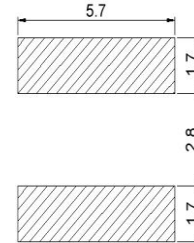
AWVT00606020 Type

■ Dimensions



unit:mm

■ Recommended Land Pattern



unit:mm

■ Electrical Characteristics

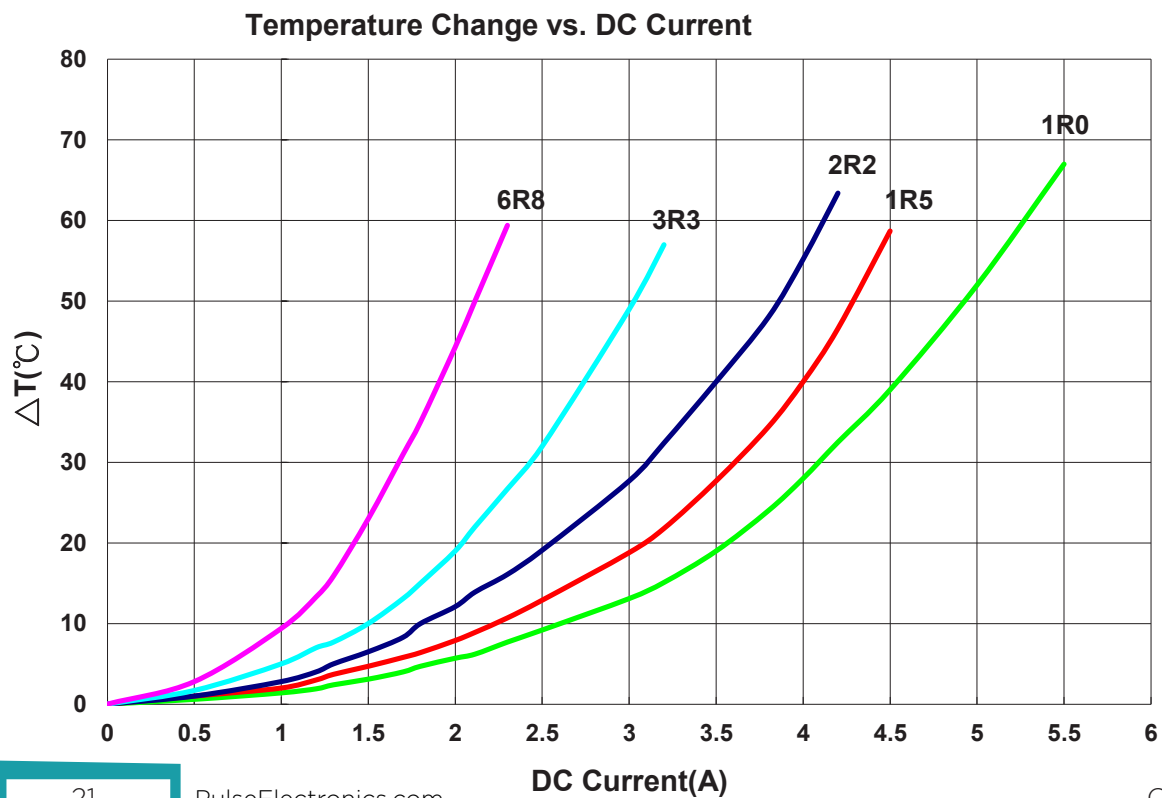
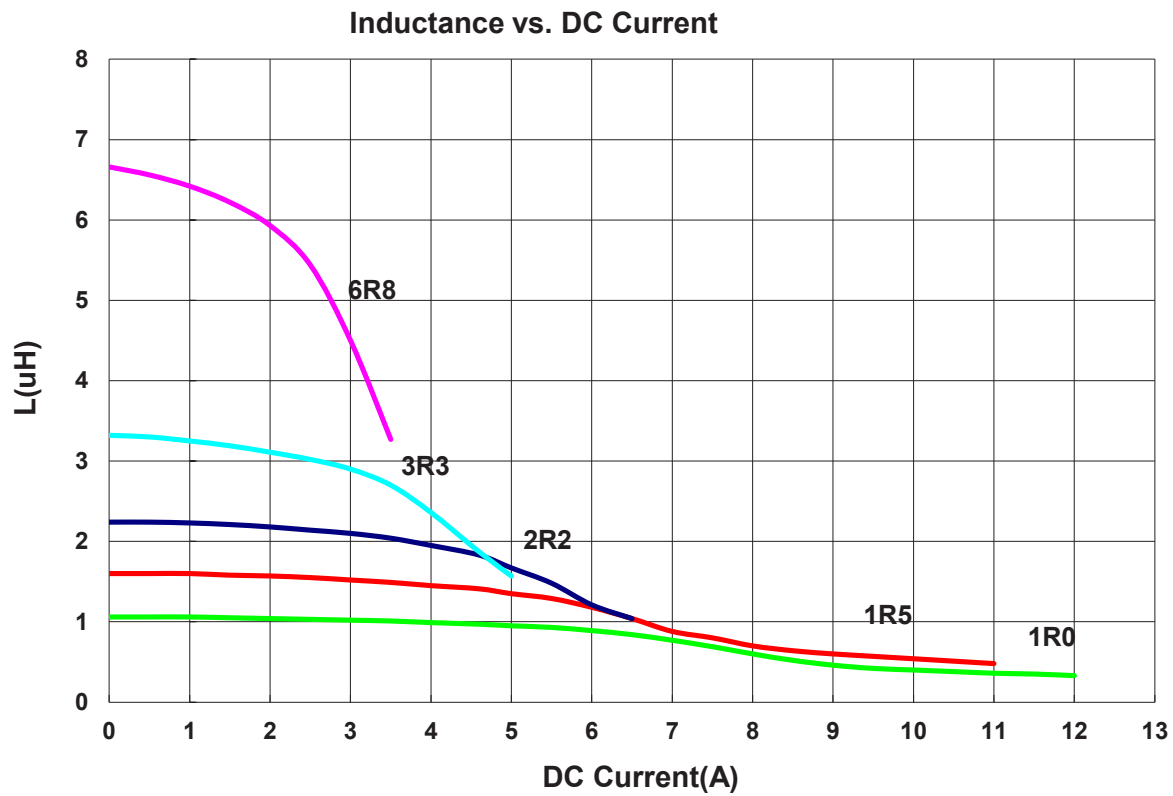
| Part No. | Inductance (uH) | Test Freq. | RDC (Ω)±30% | Isat(A) Typ.(Max) | Irms(A) Typ.(Max) | Tolerance (±%) | Marking |
|--------------------|--------------------|------------|----------------|----------------------|----------------------|-------------------|---------|
| AWVT006060201R0□00 | 1.0 | 100kHz,1V | 0.019 | 6.4(5.70) | 4.2(3.70) | 20,30 | 1R0 |
| AWVT006060201R5□00 | 1.5 | 100kHz,1V | 0.026 | 5.4(4.80) | 3.7(3.30) | 20,30 | 1R5 |
| AWVT006060202R2□00 | 2.2 | 100kHz,1V | 0.034 | 4.5(4.00) | 3.3(2.90) | 20,30 | 2R2 |
| AWVT006060203R3□00 | 3.3 | 100kHz,1V | 0.045 | 3.6(3.20) | 2.8(2.50) | 20,30 | 3R3 |
| AWVT006060206R8□00 | 6.8 | 100kHz,1V | 0.085 | 2.6(2.30) | 1.9(1.70) | 20,30 | 6R8 |

Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%

1. Operating temperature range - 40°C ~ 125°C
2. Isat for Inductance drop 30% from its value without current
3. Irms for a 40°C temperature rise from 25°C ambient with current
4. Measure Equipment:
L: Agilent HP4284A+Agilent HP42841A
RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent
Isat: Agilent HP4284A
Irms: Agilent HP4284A

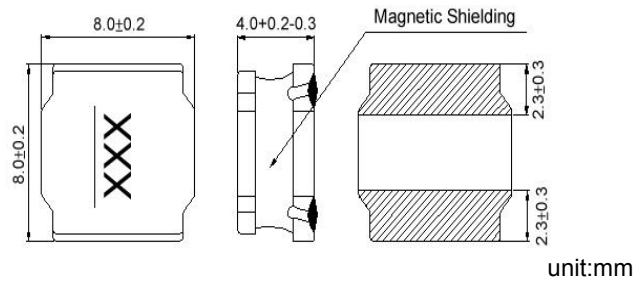
AWVT00606020 Type

Characteristics Graph

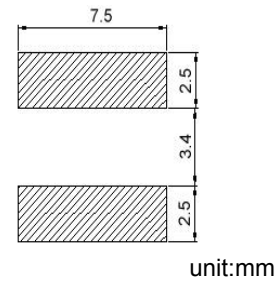


AWVT00808040 Type

■ Dimensions



■ Recommended Land Pattern



■ Electrical Characteristics

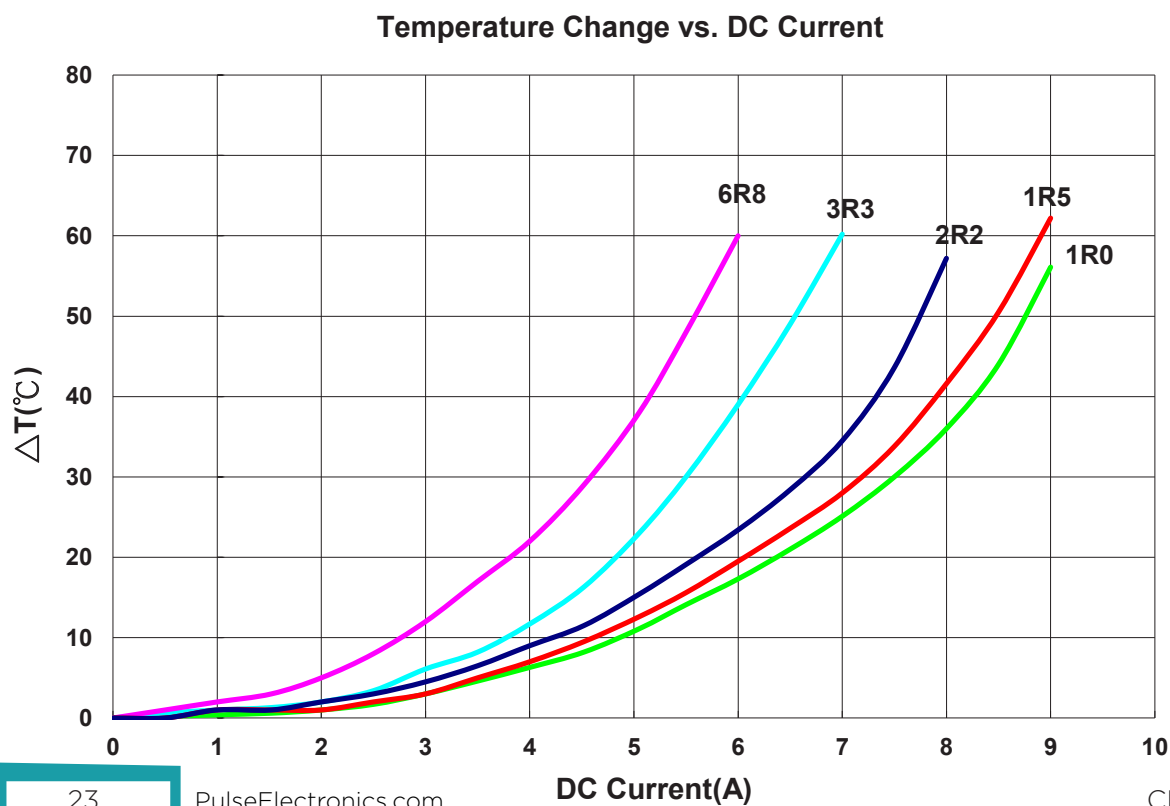
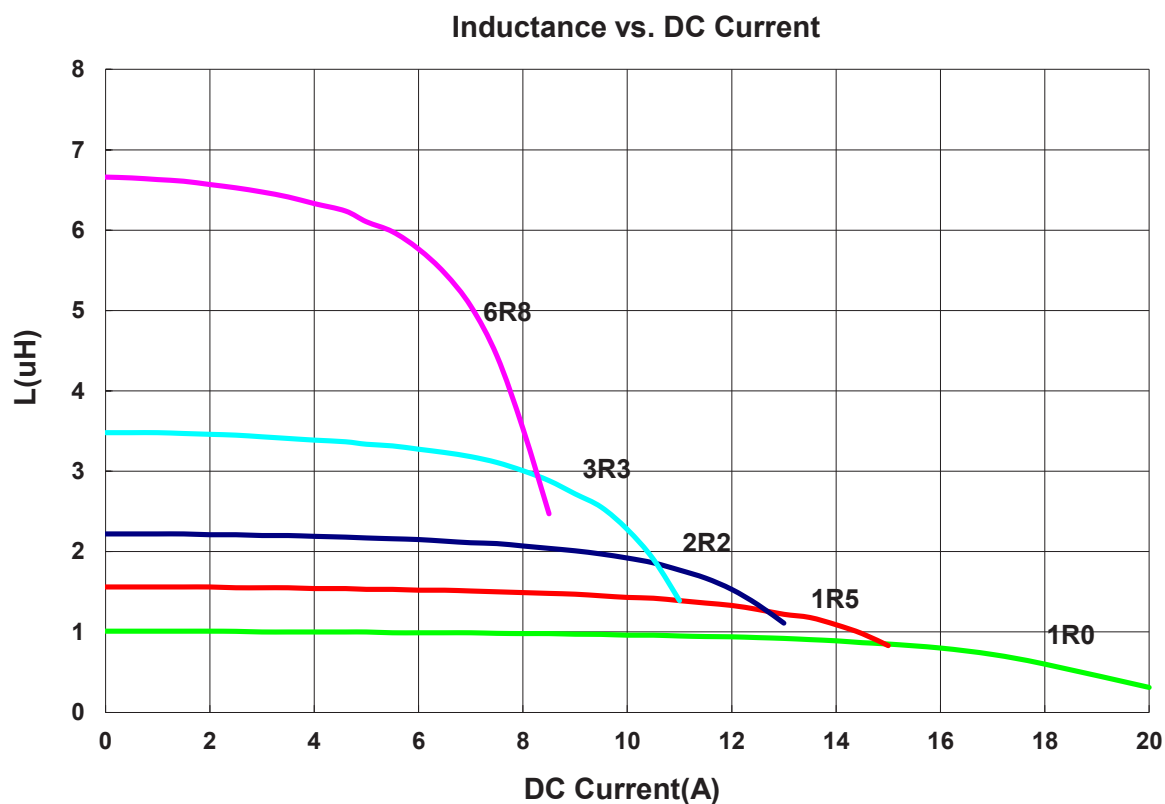
| Part No. | Inductance (uH) | Test Freq. | RDC (Ω)±30% | Isat(A) Typ.(Max) | Irms(A) Typ.(Max) | Tolerance (±%) | Marking |
|--------------------|--------------------|------------|----------------|----------------------|----------------------|-------------------|---------|
| AWVT008080401R0□00 | 1.0 | 100kHz, 1V | 0.0075 | 13.5(12.00) | 8.1(7.10) | 20,30 | 1R0 |
| AWVT008080401R5□00 | 1.5 | 100kHz, 1V | 0.0097 | 10.5(9.30) | 7.7(6.80) | 20,30 | 1R5 |
| AWVT008080402R2□00 | 2.2 | 100kHz, 1V | 0.0120 | 9.7(8.60) | 7.2(6.30) | 20,30 | 2R2 |
| AWVT008080403R3□00 | 3.3 | 100kHz, 1V | 0.0170 | 8.0(7.10) | 5.9(5.20) | 20,30 | 3R3 |
| AWVT008080406R8□00 | 6.8 | 100kHz, 1V | 0.0290 | 5.8(5.10) | 4.9(4.30) | 20,30 | 6R8 |

Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%

- Operating temperature range - 40°C ~ 125°C
- Isat for Inductance drop 30% from its value without current
- Irms for a 40°C temperature rise from 25°C ambient with current
- Measure Equipment:
L: Agilent HP4284A+Agilent HP42841A
RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent
Isat: Agilent HP4284A
Irms: Agilent HP4284A

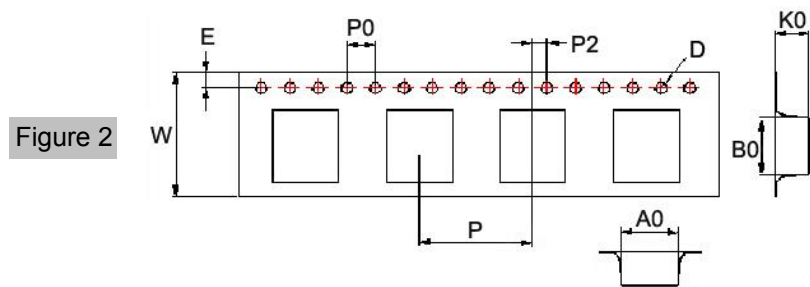
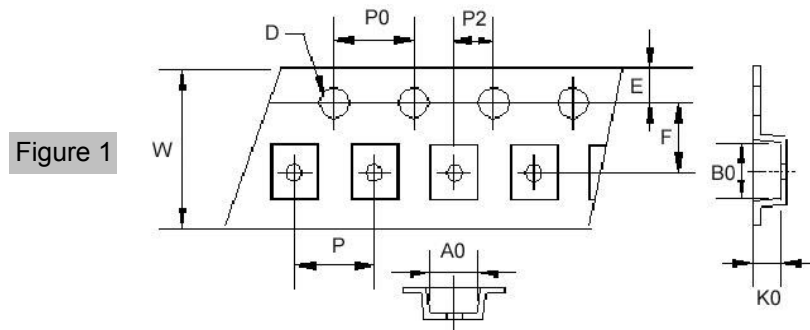
AWVT00808040 Type

Characteristics Graph

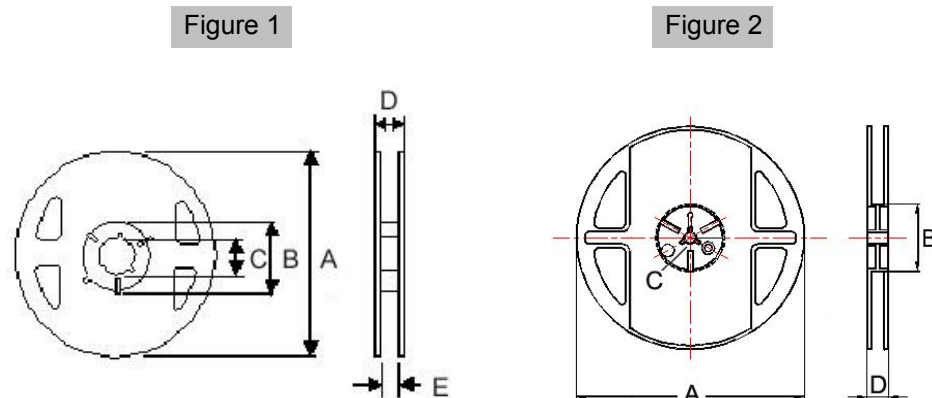


■ Packaging

Tape Dimensions



Reel Dimensions



Dimensions in mm

| TYPE | Fig | Tape Dimensions | | | | | | | | | | Reel Dimensions | | | | | Quantity |
|--------------|-----|-----------------|------|------|------|------|-----|----|----|----|----|-----------------|-----|----|------|-----|------------|
| | | A0 | B0 | K0 | D | E | F | W | P | P0 | P2 | A | B | C | D | E | PCS / Reel |
| AWVT00201610 | 1 | 1.9 | 2.2 | 1.15 | 1.55 | 1.75 | 3.5 | 8 | 4 | 4 | 2 | 180 | 60 | 13 | 14.4 | 8.4 | 2000 |
| AWVT00252010 | 1 | 2.4 | 2.7 | 1.15 | 1.55 | 1.75 | 3.5 | 8 | 4 | 4 | 2 | 180 | 60 | 13 | 14.4 | 8.4 | 2000 |
| AWVT00252012 | 1 | 2.40 | 2.70 | 1.35 | 1.55 | 1.75 | 3.5 | 8 | 4 | 4 | 2 | 180 | 60 | 13 | 14.4 | 8.4 | 2000 |
| AWVT00303010 | 1 | 3.2 | 3.2 | 1.4 | 1.55 | 1.75 | 3.5 | 8 | 4 | 4 | 2 | 180 | 60 | 13 | 14.4 | 8.4 | 2000 |
| AWVT00303012 | 1 | 3.2 | 3.2 | 1.4 | 1.55 | 1.75 | 3.5 | 8 | 4 | 4 | 2 | 180 | 60 | 13 | 14.4 | 8.4 | 2000 |
| AWVT00404012 | 2 | 4.25 | 4.25 | 1.3 | 1.55 | 1.75 | 5.5 | 12 | 8 | 4 | 2 | 178 | 60 | 13 | 13.2 | - | 1000 |
| AWVT00404015 | 2 | 4.25 | 4.25 | 1.7 | 1.55 | 1.75 | 5.5 | 12 | 8 | 4 | 2 | 178 | 60 | 13 | 13.2 | - | 1000 |
| AWVT00404026 | 2 | 4.25 | 4.25 | 3 | 1.55 | 1.75 | 5.5 | 12 | 8 | 4 | 2 | 178 | 60 | 13 | 13.2 | - | 500 |
| AWVT00505020 | 2 | 5.25 | 5.25 | 2.2 | 1.55 | 1.75 | 5.5 | 12 | 8 | 4 | 2 | 330 | 100 | 13 | 13.4 | - | 2000 |
| AWVT00606020 | 2 | 6.25 | 6.25 | 2.2 | 1.55 | 1.75 | 7.5 | 16 | 12 | 4 | 2 | 330 | 100 | 13 | 16 | - | 2000 |
| AWVT00808040 | 2 | 8.25 | 8.25 | 4.15 | 1.55 | 1.75 | 7.5 | 16 | 12 | 4 | 2 | 330 | 100 | 13 | 17.4 | - | 1000 |

For More Information:

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