

■ Features

- Magnetically shielded construction, low DC resistance
- The use of magnetic iron power ensure capability for large current
- Low audible core noise
- Ideal for DC-DC converter applications in land held personal computer and etc.
- Frequency Range: up to 30MHZ
- ROHS compliant

■ Applications

- Smart phone MID
- Next-generation mobile devices with multifunction such as adding color TV and digital movie cameras
Flat-screen TVs, blue-ray disc recorders set top box
- Notebook, desktop computers servers graphic cards
- Portable gaming devices, personal navigation systems, personal multimedia devise
- Automotive systems
- Telecom base stations

■ Lead free part numbering

ETC 0630 H 100 M T T
(1) (2) (3) (4) (5) (6) (7)

(1) Series Type

(2) Dimension A*C

(3) Material code H S

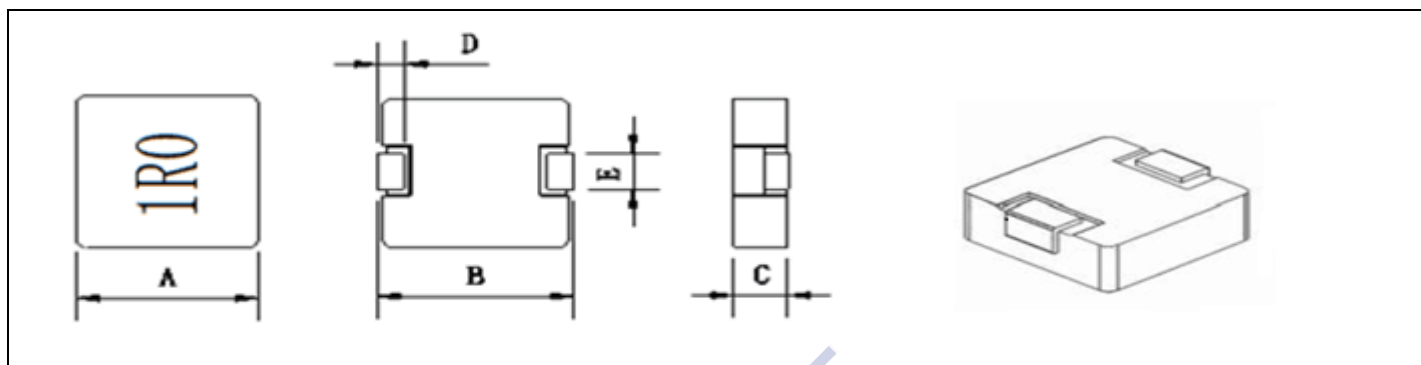
(4) Inductance 2R2=2.2UH 100=10UH 101=100UH

(5) Inductance tolerance M=+/-20% N=+/-30% K=+/-10%

(6) Company code

(7) Packaging packed in embossed carrier tape

■ Dimensions



| Size | A(mm) | B(mm) | C(mm) | D(mm) | E(mm) |
|------|-----------|-----------|--------|---------|----------|
| 0415 | 4.06±0.30 | 4.49±0.40 | 1.5MAX | 1.1±0.3 | 1.5±0.3 |
| 0420 | 4.06±0.30 | 4.49±0.40 | 2.0MAX | 1.1±0.3 | 1.5±0.3 |
| 0515 | 5.3MAX | 5.6±0.3 | 1.5MAX | 1.2±0.3 | 2.0±0.3 |
| 0520 | 5.3MAX | 5.6±0.3 | 2.0MAX | 1.2±0.3 | 2.0±0.3 |
| 0530 | 5.3MAX | 5.6±0.3 | 3.0MAX | 1.2±0.3 | 2.0±0.3 |
| 0618 | 6.6±0.3 | 7.6MAX | 1.8MAX | 1.6±0.5 | 3.0±0.3 |
| 0620 | 6.6±0.3 | 7.6MAX | 2.0MAX | 1.6±0.5 | 3.0±0.3 |
| 0624 | 6.6±0.3 | 7.6MAX | 2.4MAX | 1.6±0.5 | 3.0±0.3 |
| 0630 | 6.6±0.3 | 7.6MAX | 3.0MAX | 1.6±0.5 | 3.0±0.3 |
| 0640 | 6.6±0.3 | 7.6MAX | 4.0MAX | 1.6±0.5 | 3.0±0.3 |
| 0650 | 6.6±0.3 | 7.6MAX | 5.0MAX | 1.6±0.5 | 3.0±0.3 |
| 1030 | 10.8MAX | 11.8MAX | 3.0MAX | 2.0±0.5 | 3.0±0.3 |
| 1040 | 10.8MAX | 11.8MAX | 4.0MAX | 2.0±0.5 | 3.0±0.3 |
| 1050 | 10.8MAX | 11.8MAX | 5.0MAX | 2.0±0.5 | 3.0±0.3 |
| 1235 | 12.8±0.5 | 13.5±1.0 | 3.5MAX | 2.5±0.5 | 3.5±0.5 |
| 1240 | 12.8±0.5 | 13.5±1.0 | 4.0MAX | 2.5±0.5 | 3.5±0.5 |
| 1250 | 12.8±0.5 | 13.5±1.0 | 5.0MAX | 2.5±0.5 | 3.5±0.5 |
| 1265 | 12.8±0.5 | 13.5±1.0 | 6.5MAX | 2.5±0.5 | 3.5±0.5 |
| 1770 | 17.5MAX | 19.0MAX | 7.0MAX | 3.3±0.5 | 11.7±0.3 |

This description in the this catalogue is subject to change without notice

■ Specification

ETC0415

| Series | Standard Values - Case Size 0415 (4.0 x 4.5 x 1.5mm) | | | | |
|----------------|--|--|--|---------------------|-------|
| | INDUCTANCE (UH) | HEAT RATING CURRENT(I dc) DC AMPS1 (Typ.) | SATURATION CURRENT(I sat) DC AMPS2 (Typ.) | RDC I sat (mΩ) | |
| | | | | TYP. | MAX. |
| ETC0415SR47M** | 0.47 | 8.0 | 10.0 | 17.0 | 20.0 |
| ETC0415SR68M** | 0.68 | 6.0 | 8.0 | 19.0 | 22.0 |
| ETC0415S1R0M** | 1.0 | 5.0 | 7.0 | 40.0 | 45.0 |
| ETC0415S2R2M** | 2.2 | 3.5 | 5.0 | 92.0 | 100.0 |
| ETC0415S3R3M** | 3.3 | 2.5 | 3.0 | 105.0 | 120.0 |
| ETC0415S4R7M** | 4.7 | 2.0 | 2.5 | 120.0 | 140.0 |
| ETC0415S100M** | 10.0 | 0.5 | 0.8 | 240.0 | 260.0 |

Notes:

1. Test frequency : L : 100KHz /1.0V.
2. All test data referenced to 25°C ambient.
3. Heat Rated Current (I rms) will cause the coil temperature rise approximately Δt of 40°C (keep 1min.).
4. Saturation Current (I sat) will cause L0 to drop 30% typical. (keep quickly).
5. Special inquiries besides the above common used types can be met on your requirement.

ETC0420

| Series | Standard Values - Case Size 0420 (4.0 x 4.5 x 2.0mm) | | | | |
|----------------|--|--|--|---------------------|-------|
| | INDUCTANCE (UH) | HEAT RATING CURRENT(I dc) DC AMPS1 (Typ.) | SATURATION CURRENT(I sat) DC AMPS2 (Typ.) | RDC I sat (mΩ) | |
| | | | | TYP. | MAX. |
| ETC0420SR10M** | 0.10 | 12.0 | 23.0 | 3.5 | 4.5 |
| ETC0420SR22M** | 0.22 | 11.0 | 18.0 | 5.0 | 7.0 |
| ETC0420SR33M** | 0.33 | 8.0 | 15.0 | 8.2 | 10.5 |
| ETC0420SR47M** | 0.47 | 7.0 | 9.5 | 9.5 | 14.0 |
| ETC0420SR56M** | 0.56 | 6.5 | 9.0 | 12.0 | 18.0 |
| ETC0420SR68M** | 0.68 | 6.0 | 8.0 | 15.0 | 20.0 |
| ETC0420S1R0M** | 1.0 | 4.5 | 7.0 | 25.0 | 30.0 |
| ETC0420S1R5M** | 1.5 | 4.0 | 6.0 | 33.0 | 36.0 |
| ETC0420S2R2M** | 2.2 | 3.0 | 5.0 | 50.0 | 58.0 |
| ETC0420S3R3M** | 3.3 | 2.5 | 3.0 | 83.0 | 87.0 |
| ETC0420S4R7M** | 4.7 | 2.2 | 3.0 | 115.0 | 140.0 |
| ETC0420S6R8M** | 6.8 | 2.4 | 2.5 | 130.0 | 175.0 |
| ETC0420S100M** | 10.0 | 1.5 | 1.8 | 170.0 | 200.0 |

Notes:

1. Test frequency : L : 100KHz /1.0V.
2. All test data referenced to 25°C ambient.
3. Heat Rated Current (I rms) will cause the coil temperature rise approximately Δt of 40°C (keep 1min.).
4. Saturation Current (I sat) will cause L0 to drop 30% typical. (keep quickly).
5. Special inquiries besides the above common used types can be met on your requirement.

ETC0515

| Series | Standard Values - Case Size 0515 (5.3 x 5.5 x 1.5mm) | | | | |
|----------------|--|--|--|-----------------------------|-------|
| | INDUCTANCE (UH) | HEAT RATING CURRENT(I dc) DC AMPS1 (Typ.) | SATURATION CURRENT(I sat) DC AMPS2 (Typ.) | RDC I sat (m Ω) | |
| | | | | TYP. | MAX. |
| ETC0515SR22M** | 0.22 | 13.0 | 16.0 | 5.1 | 7.0 |
| ETC0515SR47M** | 0.47 | 8.0 | 12.0 | 12.0 | 16.0 |
| ETC0515SR68M** | 0.68 | 7.0 | 9.0 | 14.0 | 20.0 |
| ETC0515S1R0M** | 1.0 | 6.0 | 8.0 | 18.0 | 23.0 |
| ETC0515S2R2M** | 2.2 | 4.0 | 5.0 | 56.0 | 65.0 |
| ETC0515S3R3M** | 3.3 | 3.0 | 4.0 | 75.0 | 90.0 |
| ETC0515S4R7M** | 4.7 | 2.5 | 3.5 | 110.0 | 135.0 |

Notes:

1. Test frequency : L : 100KHz /1.0V.
2. All test data referenced to 25°C ambient.
3. Heat Rated Current (I rms) will cause the coil temperature rise approximately Δt of 40°C (keep 1min.).
4. Saturation Current (I sat) will cause L0 to drop 30% typical. (keep quickly).
5. Special inquiries besides the above common used types can be met on your requirement.

ETC0520

| Series | Standard Values - Case Size 0520 (5.3 x 5.5 x 2.0mm) | | | | |
|----------------|--|--|--|-----------------------------|-------|
| | INDUCTANCE (UH) | HEAT RATING CURRENT(I dc) DC AMPS1 (Typ.) | SATURATION CURRENT(I sat) DC AMPS2 (Typ.) | RDC I sat (m Ω) | |
| | | | | TYP. | MAX. |
| ETC0520SR22M** | 0.22 | 11.0 | 16.5 | 4.6 | 6.0 |
| ETC0520SR33M** | 0.33 | 10.0 | 15.0 | 7.5 | 9.0 |
| ETC0520SR47M** | 0.47 | 9.0 | 12.0 | 8.2 | 10.0 |
| ETC0520SR68M** | 0.68 | 7.0 | 11.0 | 12.5 | 16.0 |
| ETC0520S1R0M** | 1.0 | 7.0 | 8.0 | 17.0 | 19.2 |
| ETC0520S1R5M** | 1.5 | 5.0 | 7.0 | 21.0 | 28.0 |
| ETC0520S2R2M** | 2.2 | 4.0 | 6.0 | 31.0 | 45.0 |
| ETC0520S3R3M** | 3.3 | 3.5 | 5.0 | 58.0 | 70.0 |
| ETC0520S4R7M** | 4.7 | 3.0 | 3.5 | 66.0 | 85.0 |
| ETC0520S6R8M** | 6.8 | 2.0 | 3.0 | 95.0 | 100.0 |
| ETC0520S100M** | 10.0 | 1.8 | 2.5 | 170.0 | 190.0 |

Notes:

1. Test frequency : L : 100KHz /1.0V.
2. All test data referenced to 25°C ambient.
3. Heat Rated Current (I rms) will cause the coil temperature rise approximately Δt of 40°C (keep 1min.).
4. Saturation Current (I sat) will cause L0 to drop 30% typical. (keep quickly).
5. Special inquiries besides the above common used types can be met on your requirement.

ETC0530

| Series | Standard Values - Case Size 0530 (5.3 x 5.5 x 3.0mm) | | | | |
|----------------|--|--|--|---------------------|-------|
| | INDUCTANCE (UH) | HEAT RATING CURRENT(I dc) DC AMPS1 (Typ.) | SATURATION CURRENT(I sat) DC AMPS2 (Typ.) | RDC I sat (mΩ) | |
| | | | | TYP. | MAX. |
| ETC0530SR22M** | 0.22 | 14.0 | 17.0 | 4.0 | 5.0 |
| ETC0530SR47M** | 0.47 | 10.0 | 13.0 | 8.0 | 11.0 |
| ETC0530SR68M** | 0.68 | 9.0 | 12.0 | 9.0 | 12.0 |
| ETC0530S1R0M** | 1.0 | 7.0 | 11.0 | 14.0 | 16.0 |
| ETC0530S1R5M** | 1.5 | 5.5 | 10.0 | 17.0 | 22.0 |
| ETC0530S2R2M** | 2.2 | 5.0 | 9.0 | 27.0 | 30.0 |
| ETC0530S3R3M** | 3.3 | 4.5 | 7.0 | 33.0 | 38.0 |
| ETC0530S4R7M** | 4.7 | 4.0 | 5.0 | 45.0 | 60.0 |
| ETC0530S6R8M** | 6.8 | 2.5 | 3.5 | 77.0 | 90.0 |
| ETC0530S100M** | 10.0 | 2.0 | 3.0 | 110.0 | 130.0 |
| ETC0530S150M** | 15.0 | 1.8 | 2.0 | 145.0 | 165.0 |
| ETC0530S220M** | 22.0 | 1.5 | 1.5 | 200.0 | 230.0 |

Notes:

1. Test frequency : L : 100KHz /1.0V.
2. All test data referenced to 25°C ambient.
3. Heat Rated Current (I rms) will cause the coil temperature rise approximately Δt of 40°C (keep 1min.).
4. Saturation Current (I sat) will cause L0 to drop 30% typical. (keep quickly).
5. Special inquiries besides the above common used types can be met on your requirement.

ETC0618

| Series | Standard Values - Case Size 0618 (6.6 x 7.6 x 1.8mm) | | | | |
|----------------|--|--|--|---------------------|-------|
| | INDUCTANCE (UH) | HEAT RATING CURRENT(I dc) DC AMPS1 (Typ.) | SATURATION CURRENT(I sat) DC AMPS2 (Typ.) | RDC I sat (mΩ) | |
| | | | | TYP. | MAX. |
| ETC0618SR10M** | 0.1 | 18.0 | 35.0 | 2.5 | 3.5 |
| ETC0618SR22M** | 0.22 | 14.0 | 27.0 | 3.8 | 5.2 |
| ETC0618SR33M** | 0.33 | 12.0 | 22.0 | 5.6 | 6.8 |
| ETC0618SR47M** | 0.47 | 11.0 | 18.0 | 7.2 | 8.4 |
| ETC0618SR68M** | 0.68 | 9.0 | 17.0 | 9.5 | 12.0 |
| ETC0618S1R0M** | 1.0 | 7.0 | 11.0 | 17.0 | 22.0 |
| ETC0618S1R5M** | 1.5 | 6.5 | 10.0 | 23.0 | 30.0 |
| ETC0618S2R2M** | 2.2 | 6.0 | 9.0 | 31.0 | 36.0 |
| ETC0618S3R3M** | 3.3 | 4.0 | 8.0 | 65.0 | 70.0 |
| ETC0618S4R7M** | 4.7 | 3.5 | 5.0 | 73.0 | 85.0 |
| ETC0618S6R8M** | 6.8 | 2.8 | 3.5 | 100.0 | 110.0 |
| ETC0618S100M** | 10.0 | 2.3 | 2.5 | 115.0 | 150.0 |

Notes:

1. Test frequency : L : 100KHz /1.0V.
2. All test data referenced to 25°C ambient.
3. Heat Rated Current (I rms) will cause the coil temperature rise approximately Δt of 40°C (keep 1min.).
4. Saturation Current (I sat) will cause L0 to drop 30% typical. (keep quickly).
5. Special inquiries besides the above common used types can be met on your requirement.

ETC0620

| Series | Standard Values - Case Size 0620 (6.6 x 7.6 x 2.0mm) | | | | |
|----------------|--|--|--|---------------------|-------|
| | INDUCTANCE (UH) | HEAT RATING CURRENT(I dc) DC AMPS1 (Typ.) | SATURATION CURRENT(I sat) DC AMPS2 (Typ.) | RDC I sat (mΩ) | |
| | | | | TYP. | MAX. |
| ETC0620SR10M** | 0.1 | 18.0 | 35.0 | 2.5 | 3.5 |
| ETC0620SR22M** | 0.22 | 14.0 | 27.0 | 3.8 | 5.2 |
| ETC0620SR33M** | 0.33 | 12.0 | 22.0 | 5.6 | 6.8 |
| ETC0620SR47M** | 0.47 | 11.0 | 18.0 | 7.2 | 8.4 |
| ETC0620SR68M** | 0.68 | 9.0 | 17.0 | 9.5 | 12.0 |
| ETC0620S1R0M** | 1.0 | 7.0 | 11.0 | 17.0 | 22.0 |
| ETC0620S1R5M** | 1.5 | 6.5 | 10.0 | 23.0 | 30.0 |
| ETC0620S2R2M** | 2.2 | 6.0 | 9.0 | 31.0 | 36.0 |
| ETC0620S3R3M** | 3.3 | 4.0 | 8.0 | 65.0 | 70.0 |
| ETC0620S4R7M** | 4.7 | 3.5 | 5.0 | 73.0 | 85.0 |
| ETC0620S6R8M** | 6.8 | 2.8 | 3.5 | 100.0 | 110.0 |
| ETC0620S100M** | 10.0 | 2.3 | 2.5 | 115.0 | 150.0 |

Notes:

1. Test frequency : L : 100KHz /1.0V.
2. All test data referenced to 25°C ambient.
3. Heat Rated Current (I rms) will cause the coil temperature rise approximately Δt of 40°C (keep 1min.).
4. Saturation Current (I sat) will cause L0 to drop 30% typical. (keep quickly).
5. Special inquiries besides the above common used types can be met on your requirement.

ETC0624

| Series | Standard Values - Case Size 0620 (6.6 x 7.6 x 2.4mm) | | | | |
|----------------|--|--|--|---------------------|-------|
| | INDUCTANCE (UH) | HEAT RATING CURRENT(I dc) DC AMPS1 (Typ.) | SATURATION CURRENT(I sat) DC AMPS2 (Typ.) | RDC I sat (mΩ) | |
| | | | | TYP. | MAX. |
| ETC0624SR22M** | 0.22 | 20.0 | 34.0 | 2.2 | 2.8 |
| ETC0624SR33M** | 0.33 | 18.0 | 24.0 | 3.0 | 4.1 |
| ETC0624SR47M** | 0.47 | 15.0 | 21.0 | 5.6 | 6.8 |
| ETC0624SR68M** | 0.68 | 9.0 | 20.0 | 7.0 | 8.0 |
| ETC0624S1R0M** | 1.0 | 8.0 | 13.0 | 9.0 | 12.0 |
| ETC0624S1R5M** | 1.5 | 7.0 | 12.0 | 15.0 | 20.0 |
| ETC0624S2R2M** | 2.2 | 6.0 | 11.0 | 22.0 | 28.0 |
| ETC0624S3R3M** | 3.3 | 5.5 | 8.5 | 25.0 | 30.0 |
| ETC0624S4R7M** | 4.7 | 5.0 | 8.0 | 55.0 | 65.0 |
| ETC0624S6R8M** | 6.8 | 3.0 | 5.0 | 80.0 | 90.0 |
| ETC0624S100M** | 10.0 | 3.0 | 4.0 | 100.0 | 125.0 |

Notes:

1. Test frequency : L : 100KHz /1.0V.
2. All test data referenced to 25°C ambient.
3. Heat Rated Current (I rms) will cause the coil temperature rise approximately Δt of 40°C (keep 1min.).
4. Saturation Current (I sat) will cause L0 to drop 30% typical. (keep quickly).
5. Special inquiries besides the above common used types can be met on your requirement.

ETC0630

| Series | Standard Values - Case Size 0620 (6.6 x 7.6 x 3.0mm) | | | | |
|----------------|--|--|--|---------------------|-------|
| | INDUCTANCE (UH) | HEAT RATING CURRENT(I dc) DC AMPS1 (Typ.) | SATURATION CURRENT(I sat) DC AMPS2 (Typ.) | RDC I sat (mΩ) | |
| | | | | TYP. | MAX. |
| ETC0630SR10M** | 0.1 | 32.5 | 60.0 | 1.2 | 1.7 |
| ETC0630SR15M** | 0.15 | 30.0 | 40.0 | 2.0 | 2.5 |
| ETC0630SR22M** | 0.22 | 23.0 | 34.0 | 2.7 | 3.5 |
| ETC0630SR33M** | 0.33 | 21.0 | 25.0 | 3.2 | 3.9 |
| ETC0630SR47M** | 0.47 | 17.5 | 25.0 | 3.7 | 4.5 |
| ETC0630SR68M** | 0.68 | 14.0 | 23.0 | 4.8 | 5.5 |
| ETC0630SR82M** | 0.82 | 13.0 | 20.0 | 6.8 | 7.0 |
| ETC0630S1R0M** | 1.0 | 11.0 | 16.0 | 7.5 | 9.0 |
| ETC0630S1R5M** | 1.5 | 10.0 | 14.0 | 11.0 | 15.0 |
| ETC0630S2R2M** | 2.2 | 8.0 | 12.0 | 15.0 | 20.0 |
| ETC0630S3R3M** | 3.3 | 6.0 | 10.0 | 25.0 | 30.0 |
| ETC0630S4R7M** | 4.7 | 5.5 | 9.0 | 37.0 | 40.0 |
| ETC0630S5R6M** | 5.6 | 5.0 | 8.0 | 50.0 | 60.0 |
| ETC0630S6R8M** | 6.8 | 5.0 | 7.0 | 50.0 | 60.0 |
| ETC0630S8R2M** | 8.2 | 4.0 | 6.0 | 75.0 | 80.0 |
| ETC0630S100M** | 10.0 | 3.0 | 5.5 | 78.0 | 90.0 |
| ETC0630S150M** | 15.0 | 2.8 | 4.0 | 110.0 | 130.0 |
| ETC0630S220M** | 22.0 | 2.5 | 3.5 | 127.0 | 150.0 |
| ETC0630S330M** | 33.0 | 1.8 | 2.0 | 218.0 | 245.0 |
| ETC0630S470M** | 47.0 | 0.8 | 1.8 | 255.0 | 290.0 |

Notes:

1. Test frequency : L : 100KHz /1.0V.
2. All test data referenced to 25°C ambient.
3. Heat Rated Current (I rms) will cause the coil temperature rise approximately Δt of 40°C (keep 1min.).
4. Saturation Current (I sat) will cause L0 to drop 30% typical. (keep quickly).
5. Special inquiries besides the above common used types can be met on your requirement.

ETC0640

| Series | Standard Values - Case Size 0620 (6.6 x 7.6 x 4.0mm) | | | | |
|----------------|--|--|--|---------------------|-------|
| | INDUCTANCE (UH) | HEAT RATING CURRENT(I dc) DC AMPS1 (Typ.) | SATURATION CURRENT(I sat) DC AMPS2 (Typ.) | RDC I sat (mΩ) | |
| | | | | TYP. | MAX. |
| ETC0640SR22M** | 0.22 | 23.0 | 35.0 | 2.5 | 3.0 |
| ETC0640SR33M** | 0.33 | 21.0 | 25.0 | 2.8 | 3.5 |
| ETC0640SR47M** | 0.47 | 17.0 | 23.0 | 3.7 | 4.5 |
| ETC0640SR68M** | 0.68 | 14.0 | 20.0 | 4.2 | 5.5 |
| ETC0640S1R0M** | 1.0 | 10.0 | 18.0 | 5.5 | 7.0 |
| ETC0640S1R5M** | 1.5 | 9.0 | 15.0 | 9.0 | 12.0 |
| ETC0640S2R2M** | 2.2 | 8.0 | 12.0 | 10.0 | 13.0 |
| ETC0640S3R3M** | 3.3 | 6.5 | 11.0 | 17.0 | 20.0 |
| ETC0640S4R7M** | 4.7 | 6.0 | 9.0 | 22.0 | 25.0 |
| ETC0640S6R8M** | 6.8 | 5.0 | 8.0 | 41.0 | 45.0 |
| ETC0640S8R2M** | 8.2 | 4.0 | 7.0 | 46.0 | 52.0 |
| ETC0640S100M** | 10.0 | 3.5 | 6.0 | 53.0 | 65.0 |
| ETC0640S150M** | 15.0 | 3.0 | 4.5 | 70.0 | 80.0 |
| ETC0640S220M** | 22.0 | 2.5 | 4.0 | 100.0 | 120.0 |
| ETC0640S330M** | 33.0 | 2.0 | 3.0 | 165.0 | 200.0 |
| ETC0640S470M** | 47.0 | 1.5 | 2.0 | 220.0 | 260.0 |

Notes:

1. Test frequency : L : 100KHz /1.0V.
2. All test data referenced to 25°C ambient.
3. Heat Rated Current (I rms) will cause the coil temperature rise approximately Δt of 40°C (keep 1min.).
4. Saturation Current (I sat) will cause L0 to drop 30% typical. (keep quickly).
5. Special inquiries besides the above common used types can be met on your requirement.

ETC0650

| Series | Standard Values - Case Size 0620 (6.6 x 7.6 x 5.0mm) | | | | |
|----------------|--|--|--|---------------------|-------|
| | INDUCTANCE (UH) | HEAT RATING CURRENT(I dc) DC AMPS1 (Typ.) | SATURATION CURRENT(I sat) DC AMPS2 (Typ.) | RDC I sat (mΩ) | |
| | | | | TYP. | MAX. |
| ETC0650SR15M** | 0.15 | 36.0 | 45.0 | 0.8 | 1.0 |
| ETC0650SR22M** | 0.22 | 25.0 | 45.0 | 2.3 | 3.0 |
| ETC0650SR33M** | 0.33 | 23.0 | 35.0 | 2.8 | 3.5 |
| ETC0650SR47M** | 0.47 | 18.0 | 24.0 | 3.5 | 4.5 |
| ETC0650SR68M** | 0.68 | 14.0 | 21.0 | 4.2 | 5.5 |
| ETC0650SR82M** | 0.82 | 14.0 | 20.0 | 5.5 | 7.0 |
| ETC0650S1R0M** | 1.0 | 12.0 | 18.0 | 6.5 | 7.5 |
| ETC0650S1R5M** | 1.5 | 10.0 | 15.0 | 7.0 | 8.5 |
| ETC0650S2R2M** | 2.2 | 8.0 | 12.0 | 10.5 | 13.0 |
| ETC0650S3R3M** | 3.3 | 7.0 | 11.0 | 14.0 | 20.0 |
| ETC0650S4R7M** | 4.7 | 7.0 | 10.0 | 21.0 | 25.0 |
| ETC0650S6R8M** | 6.8 | 5.0 | 7.0 | 24.0 | 28.0 |
| ETC0650S8R2M** | 8.2 | 4.5 | 8.0 | 37.0 | 45.0 |
| ETC0650S100M** | 10.0 | 4.0 | 7.0 | 45.0 | 60.0 |
| ETC0650S150M** | 15.0 | 3.5 | 5.0 | 62.0 | 70.0 |
| ETC0650S220M** | 22.0 | 3.0 | 4.0 | 80.0 | 90.0 |
| ETC0650S330M** | 33.0 | 2.5 | 3.0 | 180.0 | 220.0 |
| ETC0650S470M** | 47.0 | 2.0 | 2.8 | 195.0 | 240.0 |
| ETC0650S560M** | 56.0 | 1.5 | 2.5 | 210.0 | 260.0 |
| ETC0650S680M** | 68.0 | 1.3 | 1.8 | 265.0 | 310.0 |
| ETC0650S101M** | 100.0 | 0.8 | 1.6 | 495.0 | 550.0 |

Notes:

1. Test frequency : L : 100KHz /1.0V.
2. All test data referenced to 25°C ambient.
3. Heat Rated Current (I rms) will cause the coil temperature rise approximately Δt of 40°C (keep 1min.).
4. Saturation Current (I sat) will cause L0 to drop 30% typical. (keep quickly).
5. Special inquiries besides the above common used types can be met on your requirement.

ETC1030

| Series | Standard Values - Case Size 1030 (10.8 x 11.8x 3.0mm) | | | | |
|----------------|---|--|--|---------------------|------|
| | INDUCTANCE (UH) | HEAT RATING CURRENT(I dc) DC AMPS1 (Typ.) | SATURATION CURRENT(I sat) DC AMPS2 (Typ.) | RDC I sat (mΩ) | |
| | | | | TYP. | MAX. |
| ETC1030SR36M** | 0.36 | 23.0 | 35.0 | 1.4 | 1.6 |
| ETC1030SR56M** | 0.56 | 18.0 | 24.0 | 1.5 | 1.7 |
| ETC1030SR68M** | 0.68 | 17.0 | 23.0 | 2.6 | 3.2 |
| ETC1030S1R0M** | 1.0 | 13.0 | 18.0 | 5.0 | 7.0 |
| ETC1030S1R5M** | 1.5 | 10.0 | 16.0 | 7.0 | 9.0 |
| ETC1030S2R2M** | 2.2 | 9.0 | 14.0 | 10.0 | 12.0 |
| ETC1030S3R3M** | 3.3 | 7.0 | 9.0 | 15.0 | 20.0 |
| ETC1030S4R7M** | 4.7 | 6.0 | 8.5 | 20.0 | 25.0 |
| ETC1030S6R8M** | 6.8 | 5.0 | 7.0 | 33.0 | 40.0 |
| ETC1030S8R2M** | 8.2 | 4.0 | 6.0 | 47.0 | 55.0 |
| ETC1030S100M** | 10.0 | 4.0 | 5.0 | 50.0 | 56.0 |
| ETC1030S150M** | 15.0 | 3.5 | 4.0 | 65.0 | 70.0 |

Notes:

1. Test frequency : L : 100KHz /1.0V.
2. All test data referenced to 25°C ambient.
3. Heat Rated Current (I rms) will cause the coil temperature rise approximately Δt of 40°C (keep 1min.).
4. Saturation Current (I sat) will cause L0 to drop 30% typical. (keep quickly).
5. Special inquiries besides the above common used types can be met on your requirement.

ETC1040

| Series | Standard Values - Case Size 1040 (10.8 x 11.8x 4.0mm) | | | | |
|----------------|---|--|--|---------------------|-------|
| | INDUCTANCE (UH) | HEAT RATING CURRENT(I dc) DC AMPS1 (Typ.) | SATURATION CURRENT(I sat) DC AMPS2 (Typ.) | RDC I sat (mΩ) | |
| | | | | TYP. | MAX. |
| ETC1040SR22M** | 0.22 | 30.0 | 60.0 | 0.8 | 1.1 |
| ETC1040SR36M** | 0.36 | 28.0 | 50.0 | 1.1 | 1.4 |
| ETC1040SR47M** | 0.47 | 25.0 | 35.0 | 1.2 | 1.5 |
| ETC1040SR56M** | 0.56 | 23.0 | 33.0 | 1.5 | 1.7 |
| ETC1040SR68M** | 0.68 | 22.0 | 32.0 | 1.8 | 2.3 |
| ETC1040SR82M** | 0.82 | 20.0 | 30.0 | 2.3 | 2.5 |
| ETC1040S1R0M** | 1.0 | 18.0 | 28.0 | 3.2 | 4.1 |
| ETC1040S1R5M** | 1.5 | 16.0 | 25.0 | 4.8 | 5.8 |
| ETC1040S2R2M** | 2.2 | 12.0 | 24.0 | 7.2 | 9.0 |
| ETC1040S3R3M** | 3.3 | 11.0 | 16.0 | 10.0 | 13.5 |
| ETC1040S4R7M** | 4.7 | 8.0 | 13.0 | 13.5 | 16.5 |
| ETC1040S5R6M** | 5.6 | 7.0 | 12.0 | 18.0 | 22.0 |
| ETC1040S6R8M** | 6.8 | 6.0 | 11.0 | 23.0 | 28.0 |
| ETC1040S8R2M** | 8.2 | 5.5 | 10.0 | 27.0 | 30.0 |
| ETC1040S100M** | 10.0 | 5.0 | 9.0 | 31.0 | 36.5 |
| ETC1040S150M** | 15.0 | 4.5 | 7.0 | 39.0 | 45.0 |
| ETC1040S220M** | 22.0 | 4.0 | 6.0 | 55.0 | 60.0 |
| ETC1040S330M** | 33.0 | 3.5 | 5.0 | 127.0 | 145.0 |
| ETC1040S470M** | 47.0 | 3.0 | 4.0 | 127.0 | 145.0 |
| ETC1040S680M** | 68.0 | 2.5 | 3.5 | 200.0 | 215.0 |
| ETC1040S101M** | 100.0 | 2.0 | 3.0 | 242.0 | 280.0 |

Notes:

1. Test frequency : L : 100KHz /1.0V.
2. All test data referenced to 25°C ambient.
3. Heat Rated Current (I rms) will cause the coil temperature rise approximately Δt of 40°C (keep 1min.).
4. Saturation Current (I sat) will cause L0 to drop 30% typical. (keep quickly).
5. Special inquiries besides the above common used types can be met on your requirement.

ETC1050

| Series | Standard Values - Case Size 1050 (10.8 x 11.8x 5.0mm) | | | | |
|----------------|---|--|--|---------------------|-------|
| | INDUCTANCE (UH) | HEAT RATING CURRENT(I dc) DC AMPS1 (Typ.) | SATURATION CURRENT(I sat) DC AMPS2 (Typ.) | RDC I sat (mΩ) | |
| | | | | TYP. | MAX. |
| ETC1050SR36M** | 0.36 | 38.0 | 55.0 | 0.9 | 1.1 |
| ETC1050SR47M** | 0.47 | 36.0 | 50.0 | 1.1 | 1.3 |
| ETC1050SR68M** | 0.68 | 25.0 | 40.0 | 1.6 | 2.0 |
| ETC1050SR82M** | 0.82 | 20.0 | 34.0 | 2.0 | 2.5 |
| ETC1050S1R0M** | 1.0 | 19.0 | 30.0 | 2.3 | 2.7 |
| ETC1050S1R5M** | 1.5 | 18.0 | 25.0 | 3.9 | 4.6 |
| ETC1050S2R2M** | 2.2 | 17.0 | 20.0 | 4.7 | 5.5 |
| ETC1050S3R3M** | 3.3 | 10.0 | 16.0 | 5.8 | 7.0 |
| ETC1050S4R7M** | 4.7 | 9.0 | 15.0 | 10.0 | 13.0 |
| ETC1050S6R8M** | 6.8 | 8.0 | 13.0 | 17.0 | 22.0 |
| ETC1050S8R2M** | 8.2 | 7.0 | 11.0 | 22.0 | 25.0 |
| ETC1050S100M** | 10.0 | 6.0 | 10.0 | 23.0 | 28.0 |
| ETC1050S150M** | 15.0 | 5.0 | 8.0 | 39.0 | 45.0 |
| ETC1050S220M** | 22.0 | 4.5 | 7.0 | 55.0 | 60.0 |
| ETC1050S330M** | 33.0 | 4.0 | 6.0 | 90.0 | 100.0 |
| ETC1050S470M** | 47.0 | 3.5 | 5.0 | 127.0 | 145.0 |
| ETC1050S680M** | 68.0 | 3.0 | 5.0 | 215.0 | 258.0 |
| ETC1050S101M** | 100.0 | 2.5 | 4.0 | 230.0 | 270.0 |

Notes:

1. Test frequency : L : 100KHz /1.0V.
2. All test data referenced to 25°C ambient.
3. Heat Rated Current (I rms) will cause the coil temperature rise approximately Δt of 40°C (keep 1min.).
4. Saturation Current (I sat) will cause L0 to drop 30% typical. (keep quickly).
5. Special inquiries besides the above common used types can be met on your requirement.

ETC1235

| Series | Standard Values - Case Size 1235 (12.8 x 13.5x 3.5mm) | | | | |
|----------------|---|--|--|---------------------|-------|
| | INDUCTANCE (UH) | HEAT RATING CURRENT(I dc) DC AMPS1 (Typ.) | SATURATION CURRENT(I sat) DC AMPS2 (Typ.) | RDC I sat (mΩ) | |
| | | | | TYP. | MAX. |
| ETC1235SR22M** | 0.22 | 35.0 | 60.0 | 0.9 | 1.2 |
| ETC1235SR33M** | 0.33 | 32.0 | 55.0 | 1.1 | 1.4 |
| ETC1235SR47M** | 0.47 | 30.0 | 50.0 | 1.3 | 1.5 |
| ETC1235SR68M** | 0.68 | 28.0 | 49.0 | 2.1 | 2.5 |
| ETC1235S1R0M** | 1.0 | 20.0 | 30.0 | 3.1 | 3.5 |
| ETC1235S1R5M** | 1.5 | 15.0 | 24.0 | 4.5 | 6.0 |
| ETC1235S2R2M** | 2.2 | 14.0 | 20.0 | 7.0 | 8.0 |
| ETC1235S3R3M** | 3.3 | 12.0 | 16.0 | 10.0 | 12.0 |
| ETC1235S4R7M** | 4.7 | 10.0 | 14.0 | 14.0 | 16.0 |
| ETC1235S6R8M** | 6.8 | 8.0 | 12.0 | 21.0 | 25.0 |
| ETC1235S100M** | 10.0 | 6.0 | 10.0 | 28.0 | 35.0 |
| ETC1235S150M** | 15.0 | 4.0 | 7.0 | 58.0 | 70.0 |
| ETC1235S220M** | 22.0 | 3.0 | 6.0 | 95.0 | 110.0 |

Notes:

1. Test frequency : L : 100KHz /1.0V.
2. All test data referenced to 25°C ambient.
3. Heat Rated Current (I rms) will cause the coil temperature rise approximately Δt of 40°C (keep 1min.).
4. Saturation Current (I sat) will cause L0 to drop 30% typical. (keep quickly).
5. Special inquiries besides the above common used types can be met on your requirement.

ETC1240

| Series | Standard Values - Case Size 1240 (12.8 x 13.5x 4.0mm) | | | | |
|----------------|---|--|--|---------------------|------|
| | INDUCTANCE (UH) | HEAT RATING CURRENT(I dc) DC AMPS1 (Typ.) | SATURATION CURRENT(I sat) DC AMPS2 (Typ.) | RDC I sat (mΩ) | |
| | | | | TYP. | MAX. |
| ETC1240SR22M** | 0.22 | 40.0 | 60.0 | 0.5 | 0.7 |
| ETC1240SR33M** | 0.33 | 38.0 | 55.0 | 0.7 | 0.9 |
| ETC1240SR47M** | 0.47 | 31.0 | 52.0 | 1.3 | 1.5 |
| ETC1240SR68M** | 0.68 | 28.0 | 49.0 | 2.1 | 2.5 |
| ETC1240S1R0M** | 1.0 | 20.0 | 38.0 | 2.9 | 3.5 |
| ETC1240S1R5M** | 1.5 | 16.0 | 30.0 | 3.6 | 4.5 |
| ETC1240S2R2M** | 2.2 | 15.0 | 22.0 | 6.5 | 8.0 |
| ETC1240S3R3M** | 3.3 | 14.0 | 20.0 | 8.7 | 10.0 |
| ETC1240S4R7M** | 4.7 | 9.0 | 15.0 | 12.0 | 14.0 |
| ETC1240S5R6M** | 5.6 | 8.0 | 14.0 | 15.0 | 17.0 |
| ETC1240S6R8M** | 6.8 | 7.0 | 12.0 | 17.0 | 22.0 |
| ETC1240S100M** | 10.0 | 6.0 | 10.0 | 28.0 | 35.0 |
| ETC1240S150M** | 15.0 | 5.0 | 9.0 | 55.0 | 65.0 |
| ETC1240S220M** | 22.0 | 4.0 | 7.0 | 69.0 | 80.0 |

Notes:

1. Test frequency : L : 100KHz /1.0V.
2. All test data referenced to 25°C ambient.
3. Heat Rated Current (I rms) will cause the coil temperature rise approximately Δt of 40°C (keep 1min.).
4. Saturation Current (I sat) will cause L0 to drop 30% typical. (keep quickly).
5. Special inquiries besides the above common used types can be met on your requirement.

ETC1250

| Series | Standard Values - Case Size 1250 (12.8 x 13.5x 5.0mm) | | | | |
|--------------|---|--|--|---------------------|-------|
| | INDUCTANCE (UH) | HEAT RATING CURRENT(I dc) DC AMPS1 (Typ.) | SATURATION CURRENT(I sat) DC AMPS2 (Typ.) | RDC I sat (mΩ) | |
| | | | | TYP. | MAX. |
| ETC1250SR22M | 0.22 | 40.0 | 60.0 | 0.5 | 0.7 |
| ETC1250SR36M | 0.36 | 38.0 | 55.0 | 0.7 | 0.9 |
| ETC1250SR47M | 0.47 | 31.0 | 54.0 | 1.1 | 1.3 |
| ETC1250SR68M | 0.68 | 30.0 | 51.0 | 1.3 | 1.5 |
| ETC1250SR82M | 0.82 | 28.0 | 50.0 | 1.7 | 2.2 |
| ETC1250S1R0M | 1.0 | 25.0 | 50.0 | 2.1 | 2.5 |
| ETC1250S1R5M | 1.5 | 21.0 | 48.0 | 3.1 | 4.1 |
| ETC1250S2R2M | 2.2 | 16.0 | 25.0 | 3.3 | 4.5 |
| ETC1250S3R3M | 3.3 | 15.0 | 22.0 | 7.5 | 9.0 |
| ETC1250S4R7M | 4.7 | 12.0 | 20.0 | 10.0 | 12.0 |
| ETC1250S6R8M | 6.8 | 11.0 | 18.0 | 15.0 | 18.0 |
| ETC1250S8R2M | 8.2 | 10.0 | 16.0 | 19.0 | 23.0 |
| ETC1250S100M | 10.0 | 7.0 | 12.0 | 23.0 | 25.5 |
| ETC1250S150M | 15.0 | 6.0 | 9.0 | 26.0 | 30.0 |
| ETC1250S220M | 22.0 | 4.0 | 7.0 | 30.0 | 35.0 |
| ETC1250S330M | 33.0 | 3.0 | 6.0 | 52.0 | 60.0 |
| ETC1250S470M | 47.0 | 2.5 | 5.0 | 85.0 | 100.0 |
| ETC1250S680M | 68.0 | 2.0 | 3.5 | 154.0 | 180.0 |
| ETC1250S101M | 100.0 | 2.0 | 3.0 | 243.0 | 255.0 |

Notes:

1. Test frequency : L : 100KHz /1.0V.
2. All test data referenced to 25°C ambient.
3. Heat Rated Current (I rms) will cause the coil temperature rise approximately Δt of 40°C (keep 1min.).
4. Saturation Current (I sat) will cause L0 to drop 30% typical. (keep quickly).
5. Special inquiries besides the above common used types can be met on your requirement.

ETC1265

| Series | Standard Values - Case Size 1265 (12.8 x 13.5x 6.5mm) | | | | |
|----------------|---|--|--|---------------------|-------|
| | INDUCTANCE (UH) | HEAT RATING CURRENT(I dc) DC AMPS1 (Typ.) | SATURATION CURRENT(I sat) DC AMPS2 (Typ.) | RDC I sat (mΩ) | |
| | | | | TYP. | MAX. |
| ETC1265SR22M** | 0.22 | 45.0 | 80.0 | 0.6 | 0.8 |
| ETC1265SR36M** | 0.36 | 38.0 | 70.0 | 0.8 | 1.0 |
| ETC1265SR47M** | 0.47 | 35.0 | 60.0 | 1.1 | 1.3 |
| ETC1265SR68M** | 0.68 | 30.0 | 54.0 | 1.2 | 1.5 |
| ETC1265SR82M** | 0.82 | 26.0 | 52.0 | 1.6 | 2.0 |
| ETC1265S1R0M** | 1.0 | 25.0 | 50.0 | 2.1 | 2.5 |
| ETC1265S1R5M** | 1.5 | 21.0 | 48.0 | 3.1 | 4.1 |
| ETC1265S2R2M** | 2.2 | 18.0 | 40.0 | 3.5 | 4.5 |
| ETC1265S3R3M** | 3.3 | 16.0 | 23.0 | 5.5 | 7.0 |
| ETC1265S4R7M** | 4.7 | 14.0 | 21.0 | 8.5 | 11.0 |
| ETC1265S6R8M** | 6.8 | 11.5 | 18.0 | 11.0 | 14.0 |
| ETC1265S8R2M** | 8.2 | 10.0 | 16.0 | 16.0 | 20.0 |
| ETC1265S100M** | 10.0 | 10.0 | 15.5 | 18.0 | 22.0 |
| ETC1265S150M** | 15.0 | 7.0 | 12.0 | 25.0 | 30.0 |
| ETC1265S220M** | 22.0 | 6.0 | 10.0 | 30.0 | 36.0 |
| ETC1265S330M** | 33.0 | 5.0 | 9.0 | 45.0 | 55.0 |
| ETC1265S470M** | 47.0 | 4.0 | 6.0 | 62.0 | 75.0 |
| ETC1265S680M** | 68.0 | 3.0 | 5.0 | 96.0 | 115.0 |
| ETC1265S820M** | 82.0 | 2.5 | 4.5 | 110.0 | 130.0 |
| ETC1265S101M** | 100.0 | 2.0 | 3.5 | 125.0 | 145.0 |
| ETC1265S151M** | 150.0 | 1.6 | 2.5 | 245.0 | 280.0 |

Notes:

1. Test frequency : L : 100KHz /1.0V.
2. All test data referenced to 25°C ambient.
3. Heat Rated Current (I rms) will cause the coil temperature rise approximately Δt of 40°C (keep 1min.).
4. Saturation Current (I sat) will cause L0 to drop 30% typical. (keep quickly).
5. Special inquiries besides the above common used types can be met on your requirement.

ETC1770

| Series | Standard Values - Case Size 1770 (17.5 x 19.0x 7.0mm) | | | | |
|--------------|---|--|--|---------------------|-------|
| | INDUCTANCE (UH) | HEAT RATING CURRENT(I dc) DC AMPS1 (Typ.) | SATURATION CURRENT(I sat) DC AMPS2 (Typ.) | RDC I sat (mΩ) | |
| | | | | TYP. | MAX. |
| ETC1770SR22M | 0.22 | 60.0 | 100.0 | 0.55 | 0.7 |
| ETC1770SR33M | 0.33 | 55.0 | 90.0 | 0.7 | 0.8 |
| ETC1770SR47M | 0.47 | 50.0 | 80.0 | 0.8 | 1.0 |
| ETC1770SR56M | 0.56 | 46.0 | 70.0 | 0.9 | 1.15 |
| ETC1770SR82M | 0.82 | 42.0 | 60.0 | 1.17 | 1.3 |
| ETC1770S1R0M | 1.0 | 38.0 | 50.0 | 1.45 | 1.7 |
| ETC1770S1R5M | 1.5 | 35.0 | 45.0 | 1.8 | 2.15 |
| ETC1770S2R2M | 2.2 | 25.0 | 34.0 | 2.15 | 2.6 |
| ETC1770S3R3M | 3.3 | 17.0 | 24.0 | 2.61 | 3.5 |
| ETC1770S4R7M | 4.7 | 15.0 | 21.0 | 3.38 | 5.0 |
| ETC1770S6R8M | 6.8 | 15.0 | 18.0 | 5.53 | 7.0 |
| ETC1770S8R2M | 8.2 | 12.0 | 18.0 | 7.0 | 9.0 |
| ETC1770S100M | 10.0 | 11.0 | 17.0 | 8.0 | 10.0 |
| ETC1770S150M | 15.0 | 9.0 | 12.0 | 12.0 | 15.0 |
| ETC1770S220M | 22.0 | 7.0 | 9.5 | 19.18 | 25.0 |
| ETC1770S330M | 33.0 | 6.5 | 9.0 | 30.65 | 35.0 |
| ETC1770S470M | 47.0 | 5.5 | 7.5 | 36.75 | 40.0 |
| ETC1770S680M | 68.0 | 4.0 | 5.0 | 61.0 | 80.0 |
| ETC1770S820M | 82.0 | 4.0 | 4.5 | 95.55 | 105.0 |
| ETC1770S101M | 100.0 | 3.0 | 4.0 | 111.0 | 120.0 |

Notes:

1. Test frequency : L : 100KHz /1.0V.
2. All test data referenced to 25°C ambient.
3. Heat Rated Current (I rms) will cause the coil temperature rise approximately Δt of 40°C (keep 1min.).
4. Saturation Current (I sat) will cause L0 to drop 30% typical. (keep quickly).
5. Special inquiries besides the above common used types can be met on your requirement.

■ Reliability Testing

| Item | Performance | Test Condition |
|-----------------------|---|----------------|
| Operating temperature | -55~+125°C | |
| Storage temperature | -10~+40°C, 50~60%RH (Product without taping) | |

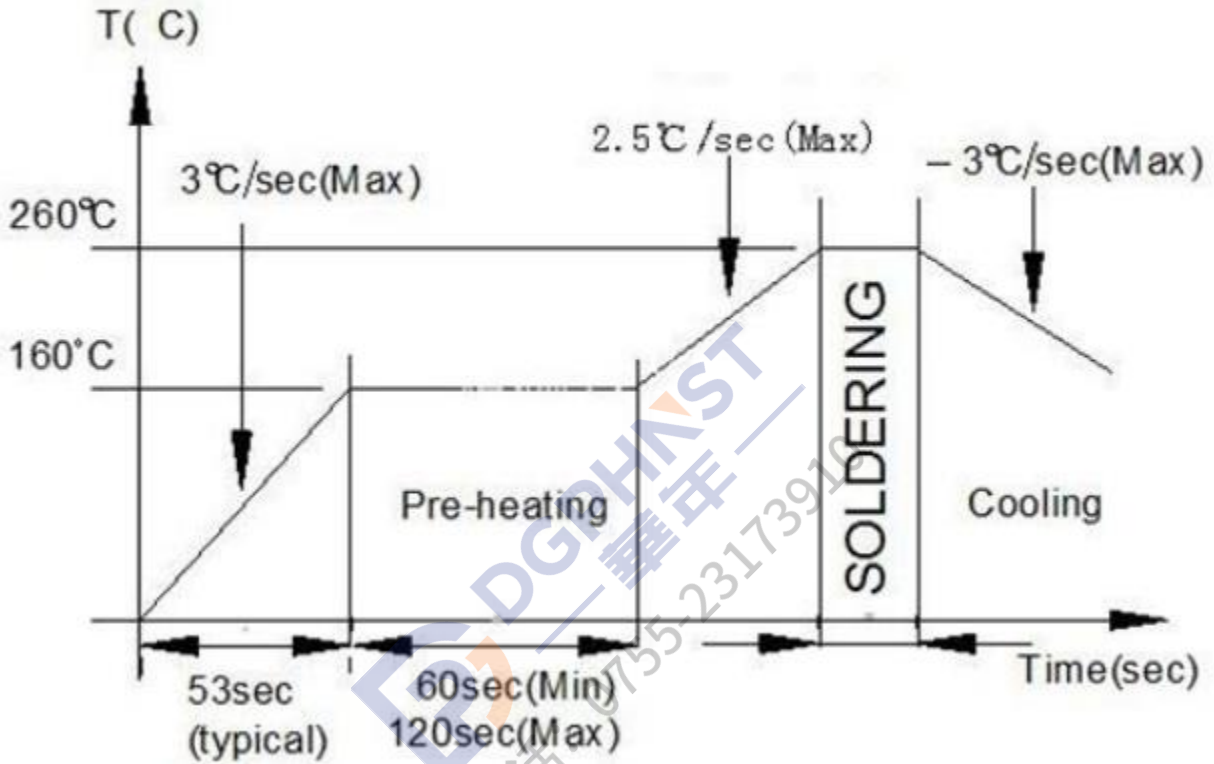
Electrical Performance Test

| | | |
|---------------------------|--|---|
| Inductance | Refer to standard electrical characteristics | HP4284A, CH11025, CH3302, CH1320, CH1320S |
| DCR | list. | CH16502, Agilent33420A Micro-Ohm Meter. |
| Saturation Current (Isat) | ΔL 30% typical. | Saturation DC Current (Isat) will cause L0 to drop ΔL (%)(keep quickly). |
| Heat Rated Current (Irms) | Approximately $\Delta T \leq 40^\circ\text{C}$ | Heat Rated Current (Irms) will cause the coil temperature rise ΔT (°C) without core loss. |

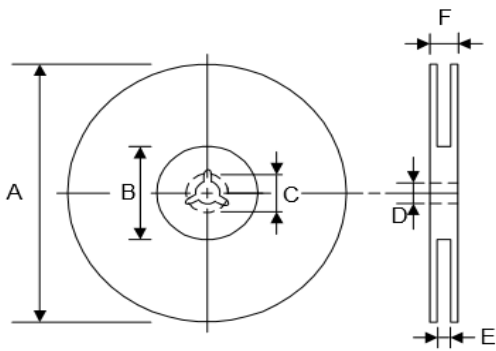
Reliability Test

| | | |
|--|---|--|
| High Temperature Exposure Test | | Temperature:125±2°C. Duration:1000±12hrs. |
| Low Temperature Life Test Low Temperature Life Test | | Temperature:-40±2°C |
| Biased Humidity Test | | Humidity:85±3%RH. Temperature:85±2°C. Duration:1000±12hrs. |
| Thermal shock test | Electric specifications should be satisfied | Condition for 1 cycle Step1:-40+0 / -2°C 15±1 min. Step2:Room temperature within≤0.2 min. Step3:+125+2 / -0°C 15±1min.Number of cycles:300 |
| Vibration test | | Frequency: 10-2000-10Hz for 20min. Amplitude: Parts mounted within 2" from any secure point. Directions and times: X, Y,Z directions for 20 min. |
| Reflow test | | Pre-heat: 150±5°C Duration: 5minutes Temperature: 260±5°C, 20~40 (IPC/JEDEC J STD-020C) |
| Solder test | Terminals should be covered by over 95% solder on visual inspection | After dip into flux, dip into solder 235±5°C, 4±1seconds Flux 、 solder for leadfree (ANSI /J-STD-002C Method B) |

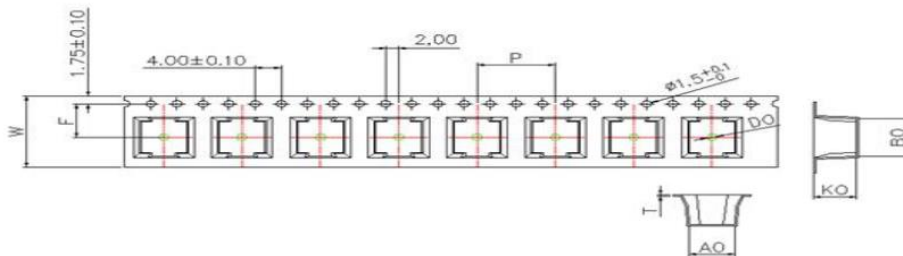
■ Soldering Condition Recommended



■ Reel Specifications



| TYPE | A | B | C | D | E | F |
|------|-----|-----|----------|------------------------|----------|----------|
| 12mm | 330 | 100 | 21.0±0.8 | 13 $\frac{+0.5}{-0.2}$ | 16±0.3 | 18.4 |
| 16mm | 330 | 100 | 21.0±0.8 | 13 $\frac{+0.5}{-0.2}$ | 16±0.3 | 22.4 |
| 24mm | 330 | 100 | 21.0±0.8 | 13 $\frac{+0.5}{-0.2}$ | 24±0.3 | 30.4 |
| 32mm | 330 | 100 | 21.0±0.8 | 13.0±0.1 | 32.0±0.5 | 36.0±2.0 |



| TYPE | Q'TY (PCS) | A0 | B0 | KO | W | P | T |
|---------|------------|----------|----------|---------|----------|----------|-----------|
| ETC0415 | 3000 | 5.2±0.1 | 4.4±0.1 | 1.6±0.1 | 12.0±0.3 | 8.0±0.1 | 0.30±0.05 |
| ETC0420 | 3000 | 5.2±0.1 | 4.4±0.1 | 2.2±0.1 | 12.0±0.3 | 8.0±0.1 | 0.30±0.05 |
| ETC0515 | 2500/3000 | 6.0±0.1 | 5.4±0.1 | 1.7±0.2 | 12.0±0.3 | 8.0±0.1 | 0.30±0.05 |
| ETC0520 | 2500/3000 | 6.0±0.1 | 5.4±0.1 | 2.2±0.1 | 12.0±0.3 | 8.0±0.1 | 0.30±0.05 |
| ETC0530 | 2000/2500 | 6.0±0.1 | 5.4±0.1 | 3.2±0.1 | 12.0±0.3 | 8.0±0.1 | 0.30±0.05 |
| ETC0618 | 2000 | 7.0±0.1 | 7.8±0.1 | 2.2±0.1 | 16.0±0.3 | 12.0±0.1 | 0.35±0.05 |
| ETC0620 | 2000 | 7.0±0.1 | 7.8±0.1 | 2.2±0.1 | 16.0±0.3 | 12.0±0.1 | 0.35±0.05 |
| ETC0624 | 1500 | 7.0±0.1 | 7.8±0.1 | 2.6±0.1 | 16.0±0.3 | 12.0±0.1 | 0.35±0.05 |
| ETC0630 | 1000 | 7.0±0.1 | 7.8±0.1 | 3.2±0.1 | 16.0±0.3 | 12.0±0.1 | 0.35±0.05 |
| ETC0640 | 1000 | 7.0±0.1 | 7.8±0.1 | 4.2±0.1 | 16.0±0.3 | 12.0±0.1 | 0.35±0.05 |
| ETC0650 | 1000 | 7.0±0.1 | 7.8±0.1 | 5.2±0.1 | 16.0±0.3 | 12.0±0.1 | 0.35±0.05 |
| ETC1030 | 1000 | 10.7±0.1 | 12.0±0.1 | 3.2±0.1 | 24.0±0.3 | 16.0±0.1 | 0.35±0.05 |
| ETC1040 | 1000 | 10.7±0.1 | 12.0±0.1 | 4.5±0.1 | 24.0±0.3 | 16.0±0.1 | 0.35±0.05 |
| ETC1050 | 500/800 | 10.7±0.1 | 12.0±0.1 | 5.2±0.1 | 24.0±0.3 | 16.0±0.1 | 0.35±0.05 |
| ETC1235 | 800 | 13.3±0.3 | 14.8±0.3 | 3.8±0.1 | 24.0±0.3 | 16.0±0.1 | 0.35±0.05 |
| ETC1240 | 800 | 13.3±0.3 | 14.8±0.3 | 4.3±0.1 | 24.0±0.3 | 16.0±0.1 | 0.35±0.05 |
| ETC1250 | 500 | 13.3±0.3 | 14.8±0.3 | 5.3±0.1 | 24.0±0.3 | 16.0±0.1 | 0.35±0.05 |
| ETC1265 | 500 | 13.3±0.3 | 14.8±0.3 | 6.8±0.1 | 24.0±0.3 | 16.0±0.1 | 0.35±0.05 |
| ETC1770 | 400 | 17.1±0.2 | 17.5±0.2 | 7.2±0.1 | 32.0±0.5 | 24.0±0.1 | 0.40±0.05 |