

Type 3622 Series

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The 3622 Series is an innovative design for a high power SMD choke. It combines Tyco quality with low price and high long-term reliability. The layout and profile make it a highly appropriate component for modern industrial equipment, power supplies, bench test instruments, and automotive requirements where long life and high reliability are key design requirements.

Key Features

- Low Profile Construction
- Wide Value Range
- Isat up to 30A
- Irms up to 10A
- Rapid Response
- Taped and Reeled
- Available in 4 sizes

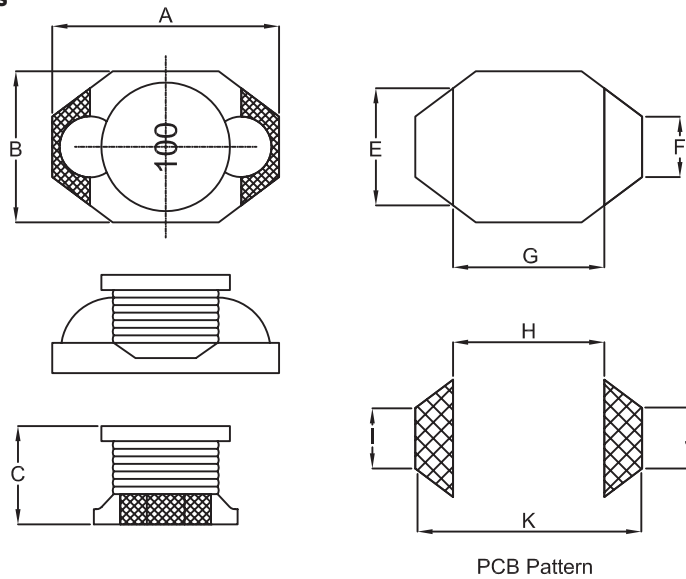
Electrical Characteristics - 3622A Series

| Inductance Code | Inductance (µH) | Tolerance (%) | S.R.F. (MHz) Typ. | R.D.C. (Ω) Max. | Isat (A) | Irms (A) |
|-----------------|-----------------|---------------|-------------------|-----------------|----------|----------|
| 1R0 | 1.0 | 20 | 130 | 0.05 | 2.90 | 2.90 |
| 1R5 | 1.5 | 20 | 115 | 0.05 | 2.60 | 2.80 |
| 2R2 | 2.2 | 20 | 90 | 0.07 | 2.30 | 2.40 |
| 3R3 | 3.3 | 20 | 70 | 0.08 | 2.00 | 2.00 |
| 4R7 | 4.7 | 20 | 50 | 0.09 | 1.50 | 1.50 |
| 6R8 | 6.8 | 20 | 45 | 0.13 | 1.20 | 1.40 |
| 100 | 10.0 | 20 | 35 | 0.16 | 1.10 | 1.10 |
| 150 | 15.0 | 20 | 30 | 0.23 | 0.90 | 1.00 |
| 220 | 22.0 | 20 | 20 | 0.37 | 0.70 | 0.80 |
| 330 | 33.0 | 20 | 15 | 0.51 | 0.58 | 0.60 |
| 470 | 47.0 | 20 | 14 | 0.64 | 0.50 | 0.50 |
| 680 | 68.0 | 20 | 11 | 0.86 | 0.40 | 0.40 |
| 101 | 100.0 | 20 | 9 | 1.27 | 0.31 | 0.30 |
| 151 | 150.0 | 20 | 6 | 2.00 | 0.27 | 0.25 |
| 221 | 220.0 | 20 | 5.5 | 3.11 | 0.22 | 0.20 |
| 331 | 330.0 | 20 | 5 | 3.80 | 0.18 | 0.16 |
| 471 | 470.0 | 20 | 4 | 5.06 | 0.16 | 0.15 |
| 681 | 680.0 | 20 | 3 | 9.20 | 0.14 | 0.12 |
| 102 | 1000.0 | 20 | 2 | 13.80 | 0.10 | 0.07 |

Environmental Characteristics - 3622A Series

| | |
|------------------------|---|
| Storage Temp: | -40°C to +125°C |
| Operating Temp: | -40°C to +105°C |
| Rated Current: | DC Current base on temp. rise & ΔL/L=10% typ. |
| Temp. Rise: | 15°C typ. |

Dimensions 3622A Series



| Series | A | B | C | E | F | G | H | I | J | K |
|--------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 3622A | 6.6 max. | 4.45 max. | 2.92 max. | 3.05 typ. | 1.27 typ. | 4.32 typ. | 4.10 ref. | 1.60 ref. | 3.00 ref. | 7.00 ref. |

Type 3622 Series

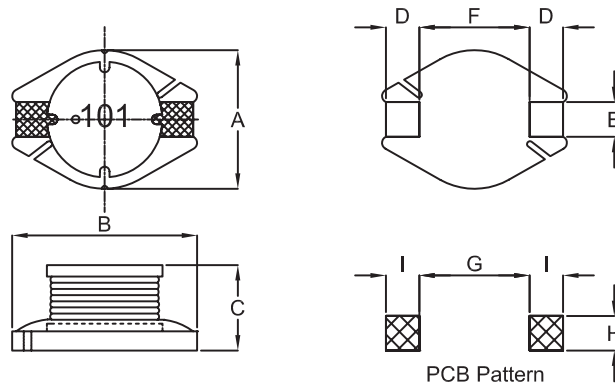
Electrical Characteristics - 3622B Series

| Inductance Code | Inductance (μH) | Tolerance (%) | R.D.C. (Ω) Max. | I _{rms} (A) Max. | I _{sat} (A) Typ. |
|-----------------|-----------------|---------------|-----------------|---------------------------|---------------------------|
| 3R3 | 3.3 | 20 | 0.022 | 5.00 | 5.20 |
| 4R7 | 4.7 | 20 | 0.028 | 4.20 | 4.00 |
| 6R8 | 6.8 | 20 | 0.040 | 3.40 | 3.40 |
| 100 | 10.0 | 20 | 0.050 | 3.00 | 2.80 |
| 150 | 15.0 | 20 | 0.070 | 2.40 | 2.30 |
| 220 | 22.0 | 20 | 0.100 | 2.00 | 1.85 |
| 330 | 33.0 | 20 | 0.145 | 1.72 | 1.54 |
| 470 | 47.0 | 15 | 0.200 | 1.40 | 1.28 |
| 680 | 68.0 | 15 | 0.270 | 1.20 | 1.15 |
| 101 | 100.0 | 15 | 0.400 | 1.00 | 0.92 |
| 151 | 150.0 | 15 | 0.560 | 0.75 | 0.75 |
| 221 | 220.0 | 15 | 0.860 | 0.62 | 0.62 |
| 331 | 330.0 | 15 | 1.500 | 0.46 | 0.50 |

Environmental Characteristics - 3622B Series

| | |
|-----------------|-----------------|
| Storage Temp: | -40°C to +125°C |
| Operating Temp: | -40°C to +105°C |
| Temp. Rise: | 40°C max. |

Dimensions 3622B Series



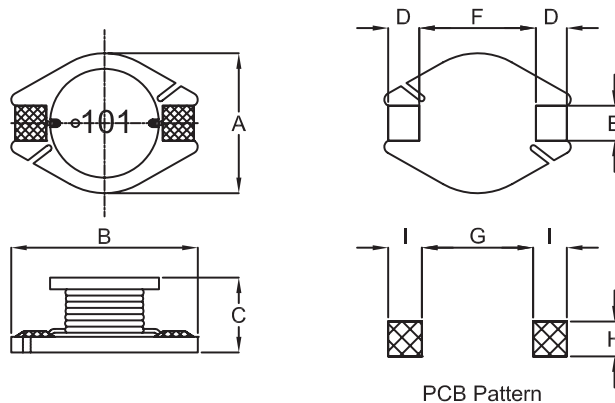
| Series | A | B | C | D | E | F | G | H | I |
|--------|---------|----------|---------|---------|---------|---------|----------|----------|----------|
| 3622B | 8.0±0.2 | 10.5±0.2 | 5.0±0.3 | 2.1±0.2 | 2.0±0.2 | 6.0±0.3 | 5.7 ref. | 2.2 ref. | 2.4 ref. |

Type 3622 Series
Electrical Characteristics - 3622C Series

| Inductance Code | Inductance (μH) 0.1 V / 100 KHz | Tolerance (%) | R.D.C. (Ω) Max. | S.R.F. (MHz) Typ. | Isat (A) | I _{rms} (A) |
|-----------------|---|---------------|--------------------------|-------------------|----------|----------------------|
| 1R0 | 1.0 | 20 | 0.007 | 130.0 | 7.50 | 9.00 |
| 1R5 | 1.5 | 20 | 0.009 | 90.0 | 6.50 | 8.00 |
| 2R5 | 2.5 | 20 | 0.012 | 65.0 | 5.50 | 7.00 |
| 3R3 | 3.3 | 20 | 0.015 | 50.0 | 5.00 | 6.40 |
| 4R7 | 4.7 | 20 | 0.019 | 45.0 | 4.50 | 5.40 |
| 6R8 | 6.8 | 20 | 0.034 | 35.0 | 3.40 | 4.50 |
| 100 | 10.0 | 20 | 0.045 | 25.0 | 2.90 | 3.70 |
| 150 | 15.0 | 20 | 0.060 | 23.0 | 2.50 | 3.00 |
| 220 | 22.0 | 20 | 0.095 | 18.0 | 2.00 | 2.50 |
| 330 | 33.0 | 10 | 0.120 | 15.0 | 1.80 | 2.00 |
| 470 | 47.0 | 10 | 0.190 | 12.0 | 1.40 | 1.60 |
| 680 | 68.0 | 10 | 0.240 | 10.0 | 1.20 | 1.40 |
| 101 | 100.0 | 10 | 0.330 | 8.0 | 1.00 | 1.20 |
| 151 | 150.0 | 10 | 0.590 | 6.0 | 0.80 | 1.00 |
| 221 | 220.0 | 10 | 0.780 | 5.0 | 0.70 | 0.80 |
| 331 | 330.0 | 10 | 1.150 | 4.0 | 0.55 | 0.60 |
| 471 | 470.0 | 10 | 1.700 | 3.5 | 0.45 | 0.50 |
| 681 | 680.0 | 10 | 2.600 | 3.0 | 0.35 | 0.40 |
| 102 | 1000.0 | 10 | 3.900 | 2.0 | 0.30 | 0.30 |
| 152 | 1500.0 | 10 | 6.300 | 1.9 | 0.25 | 0.25 |
| 222 | 2200.0 | 10 | 8.200 | 1.6 | 0.20 | 0.20 |
| 332 | 3300.0 | 10 | 14.000 | 1.2 | 0.16 | 0.17 |
| 472 | 4700.0 | 10 | 17.000 | 1.1 | 0.15 | 0.15 |
| 682 | 6800.0 | 10 | 30.000 | 0.9 | 0.11 | 0.12 |
| 103 | 10000.0 | 10 | 39.000 | 0.7 | 0.10 | 0.10 |

Environmental Characteristics - 3622C Series

| | |
|-----------------|-----------------|
| Storage Temp: | -40°C to +125°C |
| Operating Temp: | -40°C to +105°C |
| Temp. Rise: | 15°C typ. |

Dimensions 3622C Series


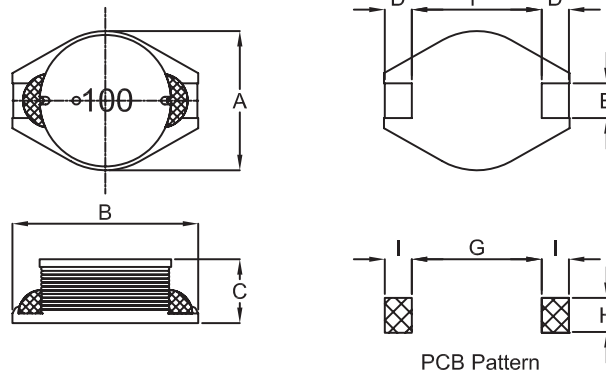
| Series | A | B | C | D | E | F | G | H | I |
|--------|----------|----------|---------|---------|---------|---------|----------|----------|----------|
| 3622C | 10.0±0.2 | 12.7±0.3 | 5.0±0.3 | 2.4±0.2 | 2.5±0.2 | 7.6±0.3 | 7.3 ref. | 2.8 ref. | 3.0 ref. |

Type 3622 Series
Electrical Characteristics - 3622D Series

| Inductance Code | Inductance (μH) | Tolerance (%) | S.R.F. (MHz) Typ. | R.D.C. (Ω) Max. | I _{rms} (A) | I _{sat} (A) |
|-----------------|-----------------|---------------|-------------------|-----------------|----------------------|----------------------|
| 1R0 | 1.0 | 20 | 100.0 | 0.004 | 10.00 | 30.00 |
| 2R2 | 2.2 | 20 | 55.0 | 0.0068 | 9.00 | 22.00 |
| 3R3 | 3.3 | 20 | 40.0 | 0.0098 | 7.60 | 17.00 |
| 5R6 | 5.6 | 20 | 30.0 | 0.015 | 6.40 | 12.80 |
| 100 | 10.0 | 20 | 25.0 | 0.025 | 5.30 | 10.00 |
| 150 | 15.0 | 20 | 17.0 | 0.035 | 4.30 | 8.00 |
| 220 | 22.0 | 20 | 13.0 | 0.045 | 3.60 | 6.70 |
| 330 | 33.0 | 20 | 11.0 | 0.068 | 3.00 | 5.40 |
| 470 | 47.0 | 20 | 9.0 | 0.095 | 2.50 | 4.60 |
| 680 | 68.0 | 20 | 8.0 | 0.130 | 2.10 | 3.80 |
| 101 | 100.0 | 10 | 7.0 | 0.190 | 1.70 | 3.20 |
| 151 | 150.0 | 10 | 5.0 | 0.270 | 1.40 | 2.60 |
| 221 | 220.0 | 10 | 4.5 | 0.420 | 1.10 | 2.20 |
| 331 | 330.0 | 10 | 3.5 | 0.580 | 1.00 | 1.80 |
| 471 | 470.0 | 10 | 3.0 | 0.820 | 0.80 | 1.50 |
| 681 | 680.0 | 10 | 2.5 | 1.2 | 0.70 | 1.20 |
| 102 | 1000.0 | 10 | 2.0 | 1.8 | 0.50 | 1.00 |

Environmental Characteristics - 3622D Series

| | |
|-----------------|-----------------|
| Storage Temp: | -40°C to +125°C |
| Operating Temp: | -40°C to +105°C |
| Temp. Rise: | 40°C max. |

Dimensions 3622D Series


| Series | A | B | C | D | E | F | G | H | I |
|--------|----------|----------|---------|---------|---------|----------|-----------|----------|----------|
| 3622D | 14.0±0.5 | 18.3±0.5 | 6.6±0.5 | 2.5±0.2 | 2.6±0.2 | 13.4±0.3 | 12.7 ref. | 2.9 ref. | 3.2 ref. |

Type 3622 Series

Reliability Test - A Series

| Test Item | Specification | Test Condition |
|----------------------------------|----------------------------|---|
| Thermal Shock Test: (Temp Cycle) | $\Delta L/L \leq \pm 30\%$ | Room Temp. $\rightarrow -25 \pm 2^\circ\text{C}$ 15 minutes \rightarrow 30 minutes Room Temp. $\rightarrow 85 \pm 2^\circ\text{C}$ 15 minutes \rightarrow 30 minutes Total: 50 cycles |
| Humidity Resistance Test: | $\Delta L/L \leq \pm 30\%$ | Temperature: $40 \pm 2^\circ\text{C}$ Humidity: 90 ~ 95% Applied Current: Per spec. Time: 500 hours |
| High Temp. Resistance Test: | $\Delta L/L \leq \pm 30\%$ | Temperature: $85 \pm 2^\circ\text{C}$ Applied Current: Per spec. Time: 500 hours |

Reliability Test - B Series

| Test Item | Specification | Test Condition |
|----------------------------------|----------------------------|---|
| Thermal Shock Test: (Temp Cycle) | $\Delta L/L \leq \pm 20\%$ | Room Temp. $\rightarrow -25 \pm 2^\circ\text{C}$ 15 minutes \rightarrow 30 minutes Room Temp. $\rightarrow 85 \pm 2^\circ\text{C}$ 15 minutes \rightarrow 30 minutes Total: 50 cycles |
| Humidity Resistance Test: | $\Delta L/L \leq \pm 20\%$ | Temperature: $40 \pm 2^\circ\text{C}$ Humidity: 90 ~ 95% Applied Current: Per spec. Time: 500 hours |
| High Temp. Resistance Test: | $\Delta L/L \leq \pm 20\%$ | Temperature: $105 \pm 2^\circ\text{C}$ Applied Current: Per spec. Time: 500 hours |

Reliability Test - C, D Series

| Test Item | Specification | Test Condition |
|----------------------------------|----------------------------|---|
| Thermal Shock Test: (Temp Cycle) | $\Delta L/L \leq \pm 20\%$ | Room Temp. $\rightarrow -25 \pm 2^\circ\text{C}$ 15 minutes \rightarrow 30 minutes Room Temp. $\rightarrow 85 \pm 2^\circ\text{C}$ 15 minutes \rightarrow 30 minutes Total: 50 cycles |
| Humidity Resistance Test: | $\Delta L/L \leq \pm 20\%$ | Temperature: $40 \pm 2^\circ\text{C}$ Humidity: 90 ~ 95% Applied Current: Per spec. Time: 500 hours |
| High Temp. Resistance Test: | $\Delta L/L \leq \pm 20\%$ | Temperature: $105 \pm 2^\circ\text{C}$ Applied Current: Per spec. Time: 500 hours |

How to Order

| 3622 | A | 1R0 | K |
|-------------|---------------|--|---|
| Common Part | Style | Inductance | Tolerance |
| 3622 | A, B, C, or D | See Relevant Table for Inductance Code | K - $\pm 10\%$ L - $\pm 15\%$ M - 20% |