

SMD Power Chokes, SSL Series



SSL - 0402 Series

| PART NO. | Inductance (μ H) $\pm 20\%$ | SRF (MHz) | RDC (Ω) MAX. | I sat (A) | Irms (A) |
|----------------|--|--------------|-----------------------------|--------------|-------------|
| SSL-0402-1R0 M | 1.0 | 130 | 0.05 | 2.90 | 2.90 |
| SSL-0402-1R5 M | 1.5 | 115 | 0.05 | 2.60 | 2.80 |
| SSL-0402-2R2 M | 2.2 | 90 | 0.07 | 2.30 | 2.4 |
| SSL-0402-3R3 M | 3.3 | 70 | 0.08 | 2.00 | 2.0 |
| SSL-0402-4R7 M | 4.7 | 50 | 0.09 | 1.50 | 1.5 |
| SSL-0402-6R8 M | 6.8 | 45 | 0.13 | 1.20 | 1.4 |
| SSL-0402-100 M | 10 | 35 | 0.16 | 1.10 | 1.1 |
| SSL-0402-150 M | 15 | 30 | 0.23 | 0.90 | 1.0 |
| SSL-0402-220 M | 22 | 20 | 0.37 | 0.70 | 0.8 |
| SSL-0402-330 M | 33 | 15 | 0.51 | 0.58 | 0.6 |
| SSL-0402-470 M | 47 | 14 | 0.64 | 0.50 | 0.5 |
| SSL-0402-680 M | 68 | 11 | 0.86 | 0.40 | 0.4 |
| SSL-0402-101 M | 100 | 9 | 1.27 | 0.31 | 0.3 |
| SSL-0402-151 M | 150 | 6 | 2.00 | 0.27 | 0.25 |
| SSL-0402-221 M | 220 | 5.5 | 2.65 | 0.22 | 0.2 |
| SSL-0402-331 M | 330 | 5 | 3.80 | 0.18 | 0.16 |
| SSL-0402-471 M | 470 | 4 | 5.06 | 0.16 | 0.15 |
| SSL-0402-681 M | 680 | 3 | 9.20 | 0.14 | 0.12 |
| SSL-0402-102 M | 1000 | 2 | 13.8 | 0.10 | 0.07 |

M = $\pm 20\%$, K = $\pm 10\%$, J = $\pm 5\%$

- # Tested at 100 KHz, 0.1 Vrms
- # Inductance drop = 10% Typical at rated Isat
- # $\Delta T = 30^\circ\text{C}$ Typical at Irms
- # Operating Temperature range -40°C to $+85^\circ\text{C}$

SMD Power Chokes, SSL Series



SSL - 0802 Series

| Part Number | Inductance at 100kHz 0.1Vrms ($\mu\text{H} \pm 20\%$) | DC Resistance ($\Omega \pm 15\%$) | I sat ² (Amps) Inductance drop = 10% |
|---------------|--|--|--|
| SSL-0802-100M | 10 | 0.09 | 2.4 |
| SSL-0802-150M | 15 | 0.12 | 2.0 |
| SSL-0802-220M | 22 | 0.19 | 1.6 |
| SSL-0802-330M | 33 | 0.25 | 1.4 |
| SSL-0802-470M | 47 | 0.32 | 1.0 |
| SSL-0802-680M | 68 | 0.55 | 0.9 |
| SSL-0802-101M | 100 | 0.70 | 0.7 |
| SSL-0802-151M | 150 | 1.0 | 0.6 |
| SSL-0802-221M | 220 | 1.6 | 0.5 |
| SSL-0802-331M | 330 | 2.2 | 0.4 |
| SSL-0802-471M | 470 | 3.3 | 0.3 |
| SSL-0802-681M | 680 | 4.4 | 0.2 |
| SSL-0802-102M | 1000 | 7.0 | 0.1 |

M = $\pm 20\%$, K = $\pm 10\%$, J = $\pm 5\%$

- # Tested at 100 KHz, 0.1 Vrms
- # Inductance drop = 10% Typical at rated Isat
- # $\Delta T = 30^\circ\text{C}$ Typical at Irms
- # Operating Temperature range -40°C to $+85^\circ\text{C}$

SMD Power Chokes, SSL Series



SSL- 0804 Series

| Part Number | Inductance at 100kHz 0.1Vrms ($\mu\text{H} \pm 20\%$) | DC Resistance ($\Omega \pm 15\%$) | I sat ² (Amps) Inductance drop = 10% |
|---------------|--|--|--|
| SSL-0804-1R0M | 1.0 | 0.008 | 9.0 |
| SSL-0804-1R5M | 1.5 | 0.009 | 8.0 |
| SSL-0804-2R2M | 2.2 | 0.010 | 7.0 |
| SSL-0804-3R3M | 3.3 | 0.013 | 6.4 |
| SSL-0804-4R7M | 4.7 | 0.016 | 5.4 |
| SSL-0804-6R8M | 6.8 | 0.019 | 4.6 |
| SSL-0804-100M | 10 | 0.025 | 3.8 |
| SSL-0804-150M | 15 | 0.040 | 3.0 |
| SSL-0804-220M | 22 | 0.050 | 2.6 |
| SSL-0804-330M | 33 | 0.088 | 2.0 |
| SSL-0804-470M | 47 | 0.12 | 1.6 |
| SSL-0804-680M | 68 | 0.16 | 1.4 |
| SSL-0804-101M | 100 | 0.23 | 1.2 |
| SSL-0804-151M | 150 | 0.33 | 1.0 |
| SSL-0804-221M | 220 | 0.53 | 0.8 |
| SSL-0804-331M | 330 | 0.81 | 0.6 |
| SSL-0804-471M | 470 | 1.10 | 0.5 |
| SSL-0804-681M | 680 | 1.60 | 0.4 |
| SSL-0804-102M | 1000 | 2.15 | 0.3 |

M = $\pm 20\%$, K = $\pm 10\%$, J = $\pm 5\%$

- # Tested at 100 KHz, 0.1 Vrms
- # Inductance drop = 10% Typical at rated Isat
- # $\Delta T = 30^\circ\text{C}$ Typical at Irms
- # Operating Temperature range -40°C to $+85^\circ\text{C}$

SMD Power Chokes, SSL Series



SSL - 0810 Series

| Part Number | Inductance ($\mu\text{H} \pm 20\%$) | DC Resistance (Ω max) | I sat ² (Amps) |
|---------------|--|----------------------------------|------------------------------|
| SSL-0810-100M | 10 | 0.033 | 8.0 |
| SSL-0810-150M | 15 | 0.042 | 7.0 |
| SSL-0810-220M | 22 | 0.054 | 5.5 |
| SSL-0810-330M | 33 | 0.080 | 4.0 |
| SSL-0810-470M | 47 | 0.10 | 3.8 |
| SSL-0810-680M | 68 | 0.17 | 3.0 |
| SSL-0810-101M | 100 | 0.22 | 2.5 |
| SSL-0810-151M | 150 | 0.34 | 2.0 |
| SSL-0810-221M | 220 | 0.44 | 1.6 |
| SSL-0810-331M | 330 | 0.70 | 1.2 |
| SSL-0810-471M | 470 | 0.95 | 1.0 |
| SSL-0810-681M | 680 | 1.20 | 1.0 |
| SSL-0810-102M | 1000 | 2.00 | 0.8 |

M = $\pm 20\%$, K = $\pm 10\%$, J = $\pm 5\%$

- # Tested at 100 KHz, 0.1 Vrms
- # Inductance drop = 10% Typical at rated Isat
- # $\Delta T = 30^\circ\text{C}$ Typical at Irms
- # Operating Temperature range -40°C to $+85^\circ$

SMD Power Chokes, SSL Series



SSL - 1306 Series

| Part Number | Inductance ($\mu\text{H} \pm 20\%$) | DC Resistance ($\Omega \pm 15\%$) | I sat ² (Amps) | I rms ³ (Amps) |
|---------------|--|--|------------------------------|------------------------------|
| SSL-1306-1R0M | 1.0 | 0.011 | 20 | 8.6 |
| SSL-1306-2R2M | 2.2 | 0.014 | 16 | 7.1 |
| SSL-1306-3R3M | 3.3 | 0.016 | 14 | 6.2 |
| SSL-1306-5R6M | 5.6 | 0.022 | 12 | 5.3 |
| SSL-1306-100M | 10 | 0.032 | 10 | 4.3 |
| SSL-1306-150M | 15 | 0.036 | 8.0 | 4.0 |
| SSL-1306-220M | 22 | 0.047 | 7.0 | 3.5 |
| SSL-1306-330M | 33 | 0.066 | 5.5 | 3.0 |
| SSL-1306-470M | 47 | 0.089 | 4.5 | 2.6 |
| SSL-1306-680M | 68 | 0.130 | 3.5 | 2.3 |
| SSL-1306-101M | 100 | 0.190 | 3.0 | 1.8 |
| SSL-1306-151M | 150 | 0.250 | 2.6 | 1.5 |
| SSL-1306-221M | 220 | 0.380 | 2.4 | 1.2 |
| SSL-1306-331M | 330 | 0.560 | 1.9 | 1.0 |
| SSL-1306-471M | 470 | 0.850 | 1.4 | 0.82 |
| SSL-1306-681M | 680 | 1.200 | 1.2 | 0.72 |
| SSL-1306-102M | 1000 | 1.800 | 1.0 | 0.56 |

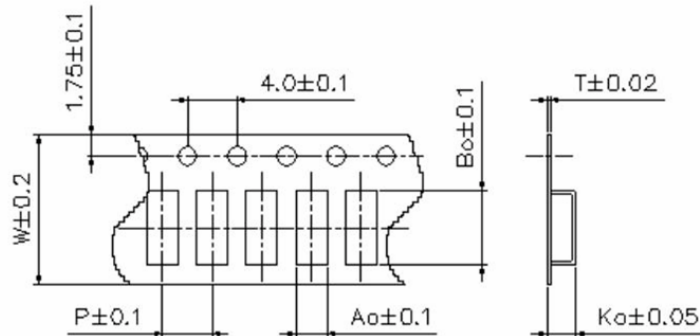
M = $\pm 20\%$, K = $\pm 10\%$, J = $\pm 5\%$

- # Tested at 100 KHz, 0.1 Vrms
- # Inductance drop = 10% Typical at rated Isat
- # $\Delta T = 30^\circ\text{C}$ Typical at Irms
- # Operating Temperature range -40°C to $+85^\circ$

SMD Power Chokes, SSL Series



Dimensions of Taping:



| Series | W | P | A0 | B0 | K0 | T | Quantity | |
|------------|----|----|------|-------|------|------|----------|----------|
| | | | | | | | 7" Reel | 13" Reel |
| SSL - 0402 | 12 | 8 | 4.8 | 6.9 | 3.0 | 0.25 | 750 | 2000 |
| SSL - 0802 | 24 | 12 | 9.7 | 13.25 | 3.3 | 0.3 | | 1000 |
| SSL - 0804 | 24 | 12 | 9.7 | 13.25 | 5.4 | 0.3 | | 500 |
| SSL - 0810 | 24 | 12 | 9.7 | 13.25 | 11.7 | 0.3 | | 225 |
| SSL - 1306 | 32 | 20 | 15.4 | 18.8 | 8 | 0.4 | | 250 |



Reliability Test (Environmental Performances):

| No. | Item | Specification | Test Condition | | | | | | | | | | | | | | | |
|------|-----------------------------|---|--|------|-----------|------------|---|-------|----|---|------|---|---|-------|----|---|------|---|
| 1. | Temperature Cycle | Appearance No damage Impedance within $\pm 20\%$ Of the initial value | <p>One Cycle</p> <table border="1"> <thead> <tr> <th>Step</th> <th>Temperate</th> <th>Time (min)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>-55°C</td> <td>30</td> </tr> <tr> <td>2</td> <td>25°C</td> <td>3</td> </tr> <tr> <td>3</td> <td>125°C</td> <td>30</td> </tr> <tr> <td>4</td> <td>25°C</td> <td>3</td> </tr> </tbody> </table> <p>Total 100 Cycles Measured after exposure in room condition = 24hrs</p> | Step | Temperate | Time (min) | 1 | -55°C | 30 | 2 | 25°C | 3 | 3 | 125°C | 30 | 4 | 25°C | 3 |
| Step | Temperate | Time (min) | | | | | | | | | | | | | | | | |
| 1 | -55°C | 30 | | | | | | | | | | | | | | | | |
| 2 | 25°C | 3 | | | | | | | | | | | | | | | | |
| 3 | 125°C | 30 | | | | | | | | | | | | | | | | |
| 4 | 25°C | 3 | | | | | | | | | | | | | | | | |
| 2 | Humidity Resistance | | <p>Temperature: +40°C \pm 2°C Humidity: 90% to 95% Time 1000 \pm 12 Hours Measured after exposure in room condition = 24hrs</p> | | | | | | | | | | | | | | | |
| 3 | High Temperature Resistance | | <p>Temperature = 125°C \pm 3°C Relative Humidity = 0% Applied Current = Rated Current as state Time = 1000 hrs \pm 12 hrs Measure after exposure in room Condition = 24hrs</p> | | | | | | | | | | | | | | | |
| 4. | Temperature Shock | | <p>10 cycles (air to Air) (1 cycles shall consist of) 30 minutes exposure to -55°C 30 minutes exposure to 125°C 15 seconds maximum transition between temperatures Measure after exposure in room Condition = 24hrs</p> | | | | | | | | | | | | | | | |

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Reliability Test (Mechanical Performances):

| No. | Item | Specification | Test Condition |
|-----|---------------------------------|--|---|
| 1. | Solderability | More than 90% of the terminal Electrode shall be covered with fresh solder | Pre heat = 150°C Pre heat Time = 1 minute Solder = Sn/Ag3.0/Cu0.5 (Pb –Free) Solder Temperature = 245°C ± 5°C Immersion Time = 4 ± 1 Sec |
| 2. | Resistance to Soldering Heat | The chips shall not crack. More than 75% of the terminal Electrode Shall be cover with solder | Pre Heat = 150°C Pre heat Time = 1 minute Solder = Sn/Ag3.0/Cu0.5 (Pb –Free) Solder Temperature = 260°C ± 5°C Immersion Time = 10 ± 1 Sec |
| 3. | Vibration | | Test Device shall be soldered on the substrate Oscillation Freq.= 10 to 55 to 10Hz for 1 min Amplitude = 1.5mm Time = 2hrs for each axis (X,Y&Z) total 6 hrs |