



### features

- Surface mount type
- Flameproof UL94V0 molded polymer case
- Excellent dimension accuracy, mountability and shock resistance
- Low profile type available (TSL)
- Marking: Black body color with white marking or laser marking
- Products with lead-free terminations meet EU RoHS requirements. EU RoHS regulation is not intended for Pb-glass contained in electrode, resistor element and glass.

### dimensions and construction



| Size Code | Dimensions inches (mm)  |                        |                        |                        |                        |                         |
|-----------|-------------------------|------------------------|------------------------|------------------------|------------------------|-------------------------|
|           | L                       | W                      | t                      | a                      | b                      | c                       |
| SL07      | .197±.012<br>(5.0±0.3)  | .098±.008<br>(2.5±0.2) | .067±.008<br>(1.7±0.2) | .079±.008<br>(2.0±0.2) | .047±.008<br>(0.9±0.2) | .035±.012<br>(1.2±0.3)  |
| SL1/SLZ1  | .248±.012<br>(6.3±0.3)  | .122±.008<br>(3.1±0.2) | .075±.008<br>(1.9±0.2) | .094±.008<br>(2.4±0.2) | .047±.008<br>(1.2±0.2) | .047±.012<br>(1.2±0.3)  |
| SL2       | .453±.012<br>(11.5±0.3) | .276±.008<br>(7.0±0.2) | .098±.008<br>(2.5±0.2) | .197±.008<br>(5.0±0.2) | .067±.008<br>(1.7±0.2) | .102±.02<br>(2.6±0.5)   |
| SLN2      | .453±.012<br>(11.5±0.3) | .276±.008<br>(7.0±0.2) | .094±.008<br>(2.4±0.2) | .217±.008<br>(5.5±0.2) | .063±.008<br>(1.6±0.2) | .100±.016<br>(2.55±0.4) |
| SL3       | .453±.012<br>(11.5±0.3) | .276±.008<br>(7.0±0.2) | .098±.008<br>(2.5±0.2) | .197±.008<br>(5.0±0.2) | .067±.008<br>(1.7±0.2) | .102±.02<br>(2.6±0.5)   |
| TSL1      | .248±.012<br>(6.3±0.3)  | .122±.008<br>(3.1±0.2) | .039±.008<br>(1.0±0.2) | .094±.008<br>(2.4±0.2) | .028±.008<br>(0.7±0.2) | .047±.012<br>(1.2±0.3)  |

### ordering information

| New Part # | SL                      | 1                                    | T  | TE  | 20L0   | F                                      |
|------------|-------------------------|--------------------------------------|--|---|--|--|
|            | Type                    | Size                                 | Termination Material   | Packaging   | Nominal Resistance   | Tolerance                              |
|            | SL<br>SLN<br>SLZ<br>TSL | 07: 0.75W<br>1: 1W<br>2: 2W<br>3: 3W | T: Sn<br>(Other termination styles may be available, please contact factory for options) | SL07, SL1, SLZ1, TSL-<br>(TE: 7" embossed plastic)<br>SL2, SLN2, SL3-<br>TED: 10" embossed plastic<br>For further information on packaging please refer to Appendix A | ±2%, ±5%: 2 significant figures + 1 multiplier "R" indicates decimal on value <10Ω<br>±0.5%, ±1%: 3 significant figures + 1 multiplier "R" indicates decimal on value <100Ω<br>All values less than 0.1Ω (100mΩ) are expressed in mΩ with "L" as decimal<br>Example: 20mΩ, 1% = 20L0 | D: ±0.5%<br>F: ±1%<br>G: ±2%<br>J: ±5% |

### applications and ratings

| Part Designation | Power Rating | T.C.R. (ppm/°C) Max.             | Resistance Range | Resistance Tolerance E-24* | Absolute Maximum Working Voltage | Absolute Maximum Overload Voltage | Operating Temperature Range |
|------------------|--------------|----------------------------------|------------------|----------------------------|----------------------------------|-----------------------------------|-----------------------------|
| SL07             | 0.75W        | 0~200: R=<10mΩ<br>0~150: R=>11mΩ | 5mΩ - 100mΩ      | (F: ±1%)<br>(J: ±5%)       | —                                | —                                 | -55°C to +180°C             |
| SL1              | 1W           | ±180: R=<13mΩ<br>±100: R=>15mΩ   | 10mΩ - 1MΩ       | (D: ±0.5%)                 | 200V                             | 400V                              |                             |
|                  |              |                                  | 5mΩ - 1MΩ        | (F: ±1%)                   |                                  |                                   |                             |
|                  |              |                                  | 3mΩ, 4mΩ         | (G: ±2%)                   |                                  |                                   |                             |
|                  |              |                                  | 3mΩ ~ 22MΩ       | (J: ±5%)                   |                                  |                                   |                             |

### applications and ratings (cont.)

| Part Designation | Power Rating | T.C.R. (ppm/°C) Max.          | Resistance Range | Resistance Tolerance E-24*         | Absolute Maximum Working Voltage | Absolute Maximum Overload Voltage | Operating Temperature Range |
|------------------|--------------|-------------------------------|------------------|------------------------------------|----------------------------------|-----------------------------------|-----------------------------|
| SL2              | 2W           | ±180: R<10mΩ<br>±100: R=>11mΩ | 10mΩ - 1MΩ       | (D: ±0.5%)                         | 500V                             | 1000V                             | -55°C to +180°C             |
|                  |              |                               | 5mΩ ~ 1MΩ        | (F: ±1%)                           |                                  |                                   |                             |
|                  |              |                               | 3mΩ, 4mΩ         | (G: ±2%)                           |                                  |                                   |                             |
|                  |              |                               | 3mΩ - 22MΩ       | (J: ±5%)                           |                                  |                                   |                             |
| SLN2             | 2W           | ±110: R<10mΩ<br>±75: R=>10mΩ  | 5mΩ - 200mΩ      | (D: ±0.5%)<br>(F: ±1%)<br>(J: ±5%) | —                                | —                                 |                             |
| SL3              | 3W           | ±180: R<10mΩ<br>±100: R=>11mΩ | 10mΩ - 100mΩ     | (D: ±0.5%)                         | —                                | —                                 |                             |
|                  |              |                               | 5mΩ - 100mΩ      | (F: ±1%)<br>(J: ±5%)               |                                  |                                   |                             |
| SLZ1**           | —            | 4000 Max.                     | 0.5mΩ Max.       | —                                  | —                                | —                                 |                             |
| TSL1             | 1W           | ±180: R<13mΩ<br>±100: R=>15mΩ | 10mΩ - 100mΩ     | (D: ±0.5%)                         | —                                | —                                 |                             |
|                  |              |                               | 5mΩ - 100mΩ      | (F: ±1%)<br>(J: ±5%)               |                                  |                                   |                             |

\* 3m, 4m, 5m, 6m, 7m, 8m, 9m resistance values also available

\*\* SLZ1: Current rating: 44A

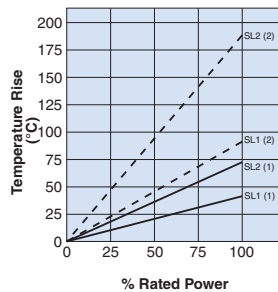
### environmental applications

#### Derating Curve

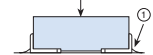


#### Surface Temperature Rise

##### SL1/SL2



##### TSL1/SLN2



### Performance Characteristics

| Parameter                   | Requirement Δ R ±%                       |   | Test Method  |
|-----------------------------|--|---|--|
|                             | Limit                                    | Typical                                   |  |
| Resistance                  | Within specified tolerance               | —   | 25°C   |
| T.C.R.                      | Within specified T.C.R.                  | —   | +25°C/+125°C   |
| Overload (Short time)       | SL07, TSL1, SL1, SL2: ±1%<br>SLN2: ±0.5% | SL07, TSL1, SL1, SL2: ±1%<br>SLN2: ±0.25% | SL07: Rated power x 4 for 5 seconds, TSL1: Rated power x 2.5 for 5 seconds, SL1, SL2, SLN2: Rated power x 5 for 5 seconds, |
| Resistance to Solder Heat   | SL07, TSL1, SL1, SL2: ±1%                | SL07, TSL1, SL1, SL2: ±1%                 | 260°C ± 5°C, 10 ± 1 second   |
|                             | SLN2: ±0.5%                              | SLN2: ±0.5%                               | 260°C ± 5°C, 10~12 seconds   |
| Rapid Change of Temperature | SL07, TSL1, SL1, SL2: ±1%                | SL07, TSL1, SL1, SL2: ±0.5%               | -55°C (30 minutes), +150°C (30 minutes), 100 cycles  |
|                             | SLN2: ±0.5%                              | SLN2: ±0.25%                              | -55°C (15 minutes), +150°C (15 minutes), 1000 cycles   |
| Moisture Resistance         | SL07, TSL1, SL1, SL2: ±2%                | SL07, TSL1, SL1, SL2: ±0.5%               | 40°C ± 2°C, 90%~95%RH, 1000 hours, 1.5 hr ON, 0.5 hr OFF cycle   |
|                             | SLN2: ±0.5%                              | SLN2: ±0.25%                              | 85°C ± 2°C, 85% ±3%RH, 1000 hours, Rated power x 0.1   |
| Endurance at 70°C           | SL07, TSL1, SL1, SL2: ±2%<br>SLN2: ±1%   | ±0.5%                                     | 70°C ± 2°C, 1000 hours, 1.5 hr ON, 0.5 hr OFF cycle  |
| Low Temperature Exposure    | ±0.5%                                    | ±0.25%                                    | SL07, TSL1, SL1, SL2: -55°C, 1 hour; SLN2: -65°C, 24 hours   |



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

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