KOA SPEER ELECTRONICS, INC.

SLN3

Surface mount molded current sense resistor

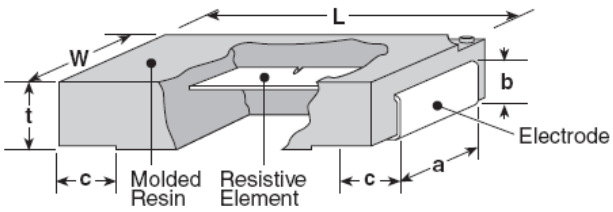
TS-16949 ISO 9001:2008 3-2015 RoHS COMPLIANT

Type SLN3- 3Watt current sense resistor

1. General

- Power Rating: 3.0W Molded Current Sense Resistor
- AEC-Q200 Qualified
- Flameproof UL94V0 molded polymer case
- Excellent dimension accuracy, mountability and shock resistance
- Product meets EU RoHS requirements

2. Dimensions



Size Code	L (mm)	W (mm)	t (mm)	a (mm)	b (mm)	c (mm)
SLN3 (4528)	11.5±0.3	7.0±0.2	2.4±0.2	5.5±0.2	1.6±0.2	2.55±0.3

3. Type Designations*

SLN	3	T	TED	30L0	F
Type	Size	Termination	Packaging	Nominal Resistance	Tolerance
	3Watt	T: Sn	TED: embossed plastic (1,000 pieces/reel)	30L0:30mΩ	D:±0.5% F: ±1% J:±5%

4. Ratings

Part Designation	Power Rating @70°C	T.C.R. (ppm/°C) Max.	Nominal Resistance (Ω)	Resistance Tolerance	Operating Temperature Range
SLN3	3W	+110:R<10mΩ +75:R=>10mΩ	5mΩ ~ 110mΩ	D: ±0.5% F: ±1% J:±5%	-55°C to + 180°C

*Please note: KOA's Part Numbers Do Not Contain any Space or Hyphens.

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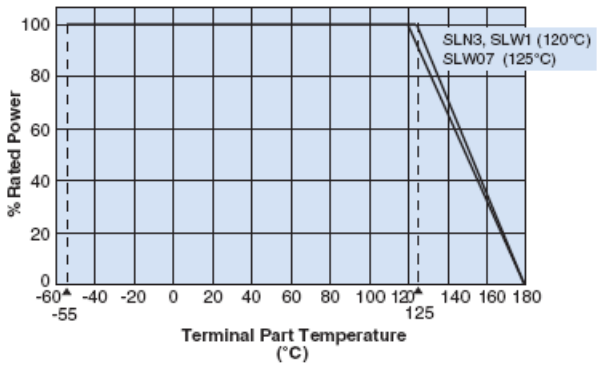
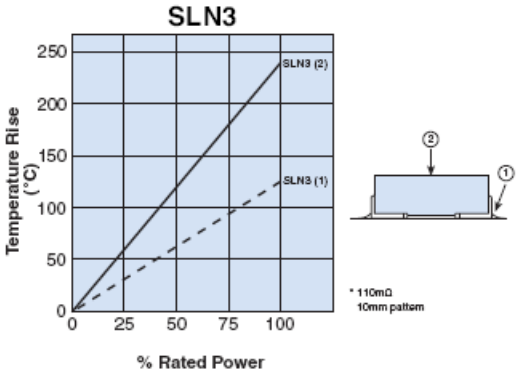
5. Power Derating Curve

For resistors operated at a terminal part temperature of described for each size or above, a power rating shall be derated in accordance with the derating curve below:



6. Surface Temperature Rise



7. Performance Characteristics

Parameter	Requirement Δ R ±% Limit	Typical	Test Method
Resistance	Within specified tolerance	—	25°C
T.C.R.	Within specified T.C.R.	—	+25°C/+125°C
Overload (Short time)	±1%: SLW07, SLW1 ±0.5%: SLN3	±1%: SLW07, SLW1 ±0.25%: SLN3	SLW07: Rated power x 3 for 5 seconds, SLW1: Rated power x 5 for 5 seconds, SLN3: Rated power x 10 for 5 seconds,
Resistance to Solder Heat	±1%: SLW07, SLW1	±1%: SLW07, SLW1	260°C ± 5°C, 10 ± 1 second
	±0.5%: SLN3	±0.5%: SLN3	260°C ± 5°C, 10~12 seconds
Rapid Change of Temperature	±1%: SLW07, SLW1	±0.5%: SLW07, SLW1	-55°C (30 minutes), +150°C (30 minutes), 100 cycles
	±0.5%: SLN3	±0.25%: SLN3	-55°C (15 minutes), +150°C (15 minutes), 1000 cycles
Moisture Resistance	±2%: SLW07, SLW1	±0.5%: SLW07, SLW1	40°C ± 2°C, 90%~95%RH, 1000 hours, 1.5 hr ON, 0.5 hr OFF cycle
	±0.5%: SLN3	±0.35%: SLN3	85°C ± 2°C, 85% RH, 1000 hours, Rated power x 0.3
Endurance of Rated Terminal Part Temperature	±2%	±1%	Terminal part temperature: 125°C (SLW07), 120 °C (SLW1, SLN3), 1000 hours, 1.5 hr ON, 0.5 hr OFF cycle
Low Temperature Exposure	±0.5%	±0.25%	SLW07, SLW1: -55°C, 1 hour; SLN3: -65°C, 24 hours

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