NTC Thermistors, Inrush Current Limiters



FEATURES

RoHS COMPLIANT

- Enhanced protection
- Recognized by UL
- Can withstand up to 10 A of continuous current and 80 J of input energy
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

APPLICATIONS

- Residential
- Commercial
- Industrial
- Healthcare
- Renewable energy
- Electric vehicle

DESCRIPTION

The standard surge limiter series comprises devices engineered to protect electrical systems by mitigating the impact of potentially harmful power surges. These surge limiters have received UL certification, attesting to their safety and performance.

QUICK REFERENCE DATA

PART NUMBER	RESISTANCE AT 25 °C (R_{25}) (Ω)	TOLERANCE ON R_{25} VALUE (%)	MAX. STEADY-STATE CURRENT UP TO 65 °C (A)	MAX. RECOMMENDED ENERGY RATING (J)	MAX. VOLTAGE (V_{RMS})	MAX. CAPACITANCE AT 120 V_{AC} (µF)
SL121R008	1	± 20	8	40	265	2778
SL121R010	1	± 20	10	28	265	1900
SL121R308	1.3	± 20	8	40	265	2778
SL122R505	2.5	± 25	5	3	265	2500
SL122R507	2.5	± 25	7	25	265	1736
SL125R002	5	± 20	2	25	265	1736
SL125R003	5	± 20	3	50	265	1736
SL125R004	5	± 20	4	40	265	2778
SL125R005	5	± 20	5	40	265	2778
SL128R003	8	± 20	3	25	265	1736
SL128R004	8	± 20	2	25	265	1736
SL1210004	10	± 20	4	40	265	2778
SL1210005	10	± 20	5	60	265	1389
SL1210006	10	± 20	6	40	265	2778
SL1210006B	10	± 20	6	40	265	2778
SL121000603	10	± 20	6	40	265	2778
SL1212004	12	± 20	4	40	265	2778
SL1215004	15	± 15	4	40	265	2778
SL1216003	16	± 20	3	40	-	2700
SL1216003A	16	± 20	3	40	-	2700
SL1217004	17.5	± 25	4	30	265	2083
SL1220002	20	± 20	2	30	265	2431
SL1220003	20	± 20	3	35	265	2431
SL1225002	25	± 20	2	30	265	2083
SL1225003	25	± 15	3	45	265	3100
SL1240002	40	± 25	2	20	265	1389
SL1250002	50	± 20	2	20	265	1389
SL1280002	80	± 20	2	30	265	2083
SL1212101	120	± 20	1	25	265	1736
SL1212102	120	± 20	2	25	265	1736
SL1212103	120	± 20	3	25	265	1736
SL1215102	150	± 20	2	10	265	692
SL1222101	220	± 20	1	30	265	2083
SL1222101AT	220	± 20	1	30	265	2083
SL1222101B	220	± 20	1	30	265	2083

For technical questions, contact: ametherm@vishay.com

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ELECTRICAL SPECIFICATIONS

PART NUMBER	RESISTANCE AT 100 % MAX. CURRENT (Ω)	RESISTANCE AT 50 % MAX. CURRENT (Ω)	BODY TEMP. AT 100 % MAX. CURRENT (°C)	DISSIPATION FACTOR (mW/°C)	THERMAL TIME CONSTANT (s)	MATERIAL TYPE (FOR BETA AND CURVE)
SL121R008	0.043	0.094	176	13.22	40	A
SL121R010	0.03	0.06	182	12.7	47	A
SL121R308	0.04	0.09	150	13.2	40	A
SL122R505	0.1	0.26	146	12.7	47	B
SL122R507	0.06	0.23	167	12.7	47	B
SL125R002	0.3	0.6	152	12.7	47	B
SL125R003	0.2	0.45	162	12.7	47	B
SL125R004	0.07	0.15	182	12.5	22	B
SL125R005	0.07	0.15	182	12.5	22	B
SL128R003	0.17	0.32	129	12.7	47	C
SL128R004	0.3	0.6	152	12.7	47	C
SL1210004	0.19	0.48	162	12.7	47	C
SL1210005	0.15	0.39	162	12.7	47	C
SL1210006	0	0.24	177	13.5	42	C
SL1210006B	0	0.24	177	13.5	42	C
SL121000603	0.12	0.24	177	13.5	42	C
SL1212004	0.4	0.85	173	12.8	26	C
SL1215004	0.16	0.34	152	13.9	54	C
SL1216003	0.22	0.538	142	13.9	54	C
SL1216003A	0.22	0.538	142	13.9	54	C
SL1217004	0.16	0.34	152	12.7	47	G
SL1220002	0.45	0.85	132	12.7	40	H
SL1220003	0.49	1.11	139	47	265	H
SL1225002	0.55	0.93	142	12.7	40	H
SL1225003	0.42	0.63	142	12.7	47	H
SL1240002	0.45	0.96	148	12.7	47	I
SL1250002	1	1.33	142	12.7	47	I
SL1280002	0.85	1.63	142	12.7	47	I
SL1212101	2.34	5	129	12	30	M
SL1212102	2.34	5	129	12	30	M
SL1212103	0.88	1.67	179	12	30	M
SL1215102	0.96	-	137	11.4	40	M
SL1222101	4	8.14	142	12	50	L
SL1222101AT	4	8.14	142	12	50	L
SL1222101B	4	8.14	142	12	50	L

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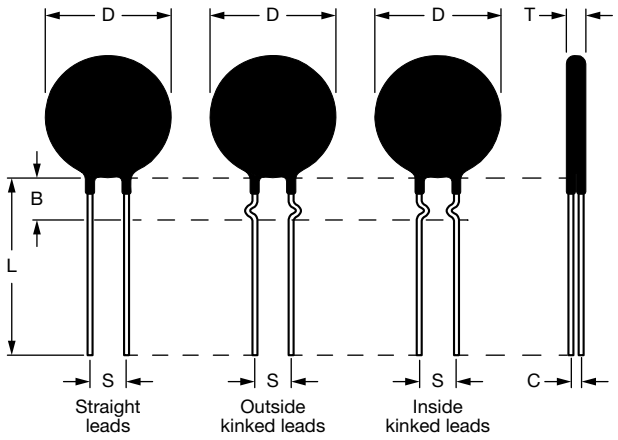
MECHANICAL SPECIFICATIONS in millimeters



PART NUMBER	B	C	D	L	S	T	LEAD DIAMETER	LEAD STYLE
SL121R008	5.0 nom.	2.15 ± 0.3	12.0 ± 1.0	38.0 ± 9.0	7.8 ± 2.0	4.0 ± 0.2	0.8 ± 0.05	Straight
SL121R010	5.0 nom.	2.15 nom.	12.0 max.	38.0 nom.	7.8 nom.	4.0 max.	0.8 nom.	Straight
SL121R308	5.0 nom.	2.15 nom.	13.0 max.	38.0 nom.	7.8 nom.	4.5 max.	0.8 nom.	Straight
SL122R505	5.0 nom.	3.5 nom.	13.0 max.	38.0 nom.	7.8 nom.	5.0 max.	0.8 nom.	Straight
SL122R507	5.0 nom.	3.42 ± 0.5	12.0 ± 0.5	38.0 ± 9.0	7.8 ± 2.0	5.1 ± 0.2	0.8 ± 0.1	Straight
SL125R002	5.0 nom.	2.95 nom.	13.0 max.	38.0 nom.	7.8 nom.	5.0 max.	0.8 nom.	Straight
SL125R003	6.0 ± 1.0	3.42 ± 0.5	12.0 ± 0.5	38.0 ± 9.0	7.8 ± 2.0	5.1 ± 0.2	0.8 ± 0.1	Straight
SL125R004	5.0 nom.	2.95 nom.	12.0 max.	38.0 nom.	7.8 nom.	5.0 max.	0.8 nom.	Straight
SL125R005	5.0 nom.	2.95 nom.	12.0 max.	38.0 nom.	7.8 nom.	5.0 max.	0.8 nom.	Straight
SL128R003	5.0 nom.	3.42 ± 0.5	12.0 ± 0.5	38.0 nom.	7.8 ± 2.0	5.0 ± 0.5	0.8 ± 0.1	Straight
SL128R004	5.0 nom.	3.5 nom.	13.0 max.	38.0 nom.	7.8 nom.	6.0 max.	0.8 nom.	Straight
SL1210004	5.0 nom.	3.42 nom.	13.0 max.	38.0 nom.	7.8 nom.	5.5 max.	0.8 nom.	Straight
SL1210005	5.0 nom.	3.2 ± 0.5	12.0 ± 1.0	38.0 ± 9.0	7.8 ± 2.0	5.1 max.	0.8 ± 0.1	Straight
SL1210006	5.0 nom.	3.78 nom.	12.3 max.	38.0 nom.	7.8 nom.	5.5 max.	0.8 nom.	Straight
SL1210006B	6.35 nom.	3.78 nom.	12.3 max.	38.0 nom.	7.8 nom.	5.5 max.	0.8 nom.	Outside kinked
SL121000603	5.0 nom.	3.9 nom.	13.0 max.	38.0 nom.	7.8 nom.	6.0 max.	1.0 nom.	Straight
SL1212004	5.0 nom.	3.5 max.	12.5 max.	38.0 min.	7.8 nom.	5.0 max.	0.8 nom.	Straight
SL1215004	5.0 nom.	2.82 ± 0.5	12.0 ± 0.5	38.0 nom.	7.8 ± 2.0	5.0 ± 0.5	0.8 ± 0.1	Straight
SL1216003	6.0 ± 1.0	2.82 ± 0.5	12.0 ± 0.5	38.0 ± 9.0	7.8 ± 2.0	4.5 ± 0.2	0.8 ± 0.1	Straight
SL1216003A	6.0 ± 1.0	2.82 ± 0.5	12.0 ± 0.5	38.0 ± 9.0	7.8 ± 2.0	4.5 ± 0.2	0.8 ± 0.1	Inside kinked
SL1217004	5.0 nom.	3.42 nom.	11.5 max.	38.0 nom.	7.8 nom.	5.1 max.	1.0 nom.	Straight
SL1220002	5.0 nom.	3.42 nom.	12.0 max.	38.0 nom.	7.8 nom.	5.1 max.	0.8 nom.	Straight
SL1220003	5.0 nom.	3.42 nom.	13.0 max.	38.0 nom.	7.8 nom.	5.5 max.	0.8 nom.	Straight
SL1225002	5.0 nom.	3.42 nom.	13.0 max.	38.0 nom.	7.8 nom.	5.5 max.	0.8 nom.	Straight
SL1225003	5.0 nom.	3.42 ± 0.5	12.0 ± 0.5	38.0 ± 9.0	7.8 ± 2.0	5.1 ± 0.2	0.8 ± 0.1	Straight
SL1240002	5.0 nom.	3.42 ± 0.5	12.0 ± 0.5	38.0 nom.	7.8 ± 2.0	5.0 ± 0.5	0.8 ± 0.1	Straight
SL1250002	5.0 nom.	3.42 nom.	13.0 max.	38.0 nom.	7.8 nom.	5.0 max.	0.8 nom.	Straight
SL1280002	5.0 nom.	4.1 nom.	13.0 max.	38.0 nom.	7.8 nom.	6.0 max.	0.8 nom.	Straight
SL1212101	5.0 nom.	3.6 nom.	12.0 max.	38.0 nom.	7.8 nom.	5.0 max.	0.8 nom.	Straight
SL1212102	5.0 nom.	3.6 nom.	12.0 max.	38.0 nom.	7.8 nom.	5.0 max.	0.8 nom.	Straight
SL1212103	5.0 nom.	3.6 nom.	12.0 max.	38.0 nom.	7.8 nom.	5.0 max.	0.8 nom.	Straight
SL1215102	5.0 nom.	3.42 ± 0.5	12.0 ± 1.0	39.0 ± 9.0	7.8 ± 2.0	5.0 ± 0.5	0.8 ± 0.1	Straight
SL1222101	5.0 nom.	3.42 ± 0.5	12.0 ± 0.5	38.0 nom.	7.8 nom.	5.5 ± 0.5	0.8 ± 0.1	Straight
SL1222101AT	6.35 nom.	3.42 ± 0.5	12.0 ± 0.5	38.0 nom.	7.8 nom.	5.5 ± 0.5	0.8 ± 0.1	Inside kinked
SL1222101B	6.35 nom.	3.42 ± 0.5	12.0 ± 0.5	38.0 nom.	7.8 nom.	5.5 ± 0.5	0.8 ± 0.1	Outside kinked

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