

## NTC Thermistors, Inrush Current Limiters



### FEATURES

- Enhanced protection
- Recognized by UL
- Can withstand up to 5 A of continuous current and 65 J of input energy
- Material categorization: for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)

**RoHS**  
COMPLIANT

### APPLICATIONS

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

### DESCRIPTION

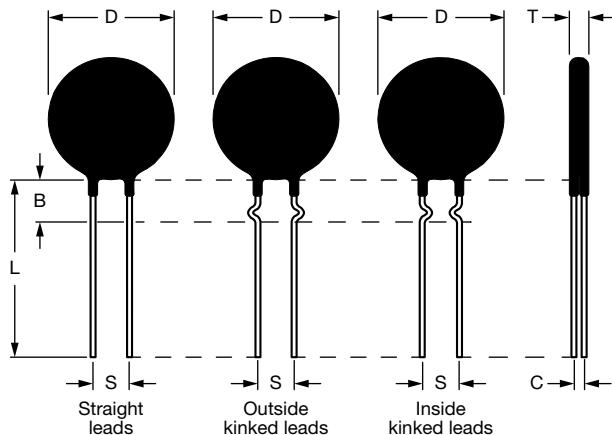
The standard surge limiter series comprises devices engineered to protect electrical systems by mitigating the impact of potentially harmful power surges. These surge limiters have received UL certification, attesting to their safety and performance.

### 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 <sub>AC</sub> )	MAX. CAPACITANCE AT 120 V <sub>AC</sub> (μF)
SL102R005	2	± 20	5	30	265	2000
SL102R505	2.5	± 30	5	30	265	2000
SL104R004	4	± 20	4	20	265	1300
SL105R002	5	± 20	2	20	265	1300
SL105R003	5	± 20	3	20	265	1300
SL105R004	5	± 20	4	20	265	1300
SL105R004A	5	± 20	4	20	265	1300
SL1010002	10	± 25	2	10	265	700
SL1010003	10	± 20	3	17	265	1100
SL1010003BT	10	± 20	3	17	265	1000
SL1010004	10	± 20	4	17	265	1100
SL1015002	15	± 20	2	17	265	1100
SL1015003	15	± 20	3	17	265	1100
SL1025002	25	± 25	2	20	265	1300
SL1025002A	25	± 25	2	20	265	1300
SL1030002	30	± 15	2	15	265	1000
SL1040002	40	± 20	2	15	265	1050
SL1050001	50	± 25	1.1	18	265	1200
SL1050001A	50	± 25	1.1	18	265	1200
SL1050002	50	± 25	2	18	265	900
SL1012101	120	± 20	1	14	265	1200

**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)
SL102R005	0.1	0.2	150	10	25	A
SL102R505	0	0.22	165	10	25	A
SL104R004	0.14	0.29	160	10.5	30	A
SL105R002	0.5	0.7	170	11	30	B
SL105R003	0.5	0.7	170	11	30	B
SL105R004	0.2	0.4	181	11	30	B
SL105R004A	0.2	0.4	181	11	30	B
SL1010002	0.34	0.6	124	9.4	20	C
SL1010003	0.28	0.71	135	11	30	C
SL1010003BT	0.258	0.567	151	11	30	C
SL1010004	0.22	0.4	161	11.5	35	C
SL1015002	0.47	0.89	125	12	35	G
SL1015003	0.38	0.809	145	11	30	C
SL1025002	0.48	1.06	110	9.4	20	C
SL1025002A	0.48	1.06	110	9.4	20	C
SL1030002	0.495	1.10	147	11	25	G
SL1040002	0.65	1.55	142	11	25	H
SL1050001	0.95	0.38	125	11.2	38	H
SL1050001A	0.95	0.38	125	11.2	38	H
SL1050002	0.44	1.2	140	11.2	38	H
SL1012101	2	6.6	137	10	30	M

**MECHANICAL SPECIFICATIONS** in millimeters


PART NUMBER	B	C	D	L	S	T	LEAD DIAMETER	LEAD STYLE
SL102R005	5.0 nom.	2.2 nom.	10.0 max.	38.0 nom.	5.1 nom.	5.0 max.	0.5 nom.	Straight
SL102R505	5.0 nom.	2.0 nom.	10.0 max.	38.0 nom.	5.0 nom.	4.5 max.	0.5 nom.	Straight
SL104R004	5.0 nom.	$2.2 \pm 0.3$	10.0 max.	38.0 nom.	6.3 nom.	5.0 max.	0.5 nom.	Straight
SL105R002	5.0 nom.	2.3 nom.	10.0 max.	38.0 nom.	5.1 nom.	4.0 max.	0.5 nom.	Straight
SL105R003	5.0 nom.	2.3 nom.	10.0 max.	38.0 nom.	5.1 nom.	4.0 max.	0.5 nom.	Straight
SL105R004	5.0 nom.	2.3 nom.	10.0 max.	38.0 nom.	5.0 nom.	4.5 max.	0.5 nom.	Straight
SL105R004A	6.35 nom.	2.3 nom.	10.0 max.	38.0 nom.	5.0 nom.	4.5 max.	0.5 nom.	Inside kinked
SL1010002	5.0 nom.	2.54 nom.	10.0 max.	38.0 nom.	5.1 nom.	4.5 max.	0.5 nom.	Straight
SL1010003	5.0 nom.	$2.3 \pm 0.2$	$10.0 \pm 1.0$	$38.0 \pm 9.0$	$7.8 \pm 1.0$	$4.0 \pm 0.5$	$0.8 \pm 0.1$	Straight
SL1010003BT	6.35 nom.	$3.0 \pm 0.5$	$10.0 \pm 1.0$	30.0 nom.	$7.8 \pm 0.5$	5.0 max.	$0.8 \pm 0.1$	Outside kinked
SL1010004	5.0 nom.	2.2 nom.	10.0 max.	38.0 nom.	5.0 nom.	4.5 max.	0.5 nom.	Straight
SL1015002	5.0 nom.	2.2 nom.	10.0 max.	12.7 nom.	7.8 nom.	5.0 max.	0.8 nom.	Straight
SL1015003	5.0 nom.	$3.3 \pm 0.3$	$10.0 \pm 0.5$	$38.0 \pm 3.0$	$7.8 \pm 2.0$	$5.0 \pm 0.5$	$0.8 \pm 0.1$	Straight
SL1025002	$5.0 \pm 0.5$	$2.35 \pm 0.5$	$10.0 \pm 0.5$	42.0 nom.	5.1 nom.	5.0 max.	$0.5 \pm 0.05$	Straight
SL1025002A	6.35 nom.	$2.54 \pm 1.0$	$10.0 \pm 0.5$	42.0 nom.	7.8 nom.	5.0 max.	$0.8 \pm 0.03$	Inside kinked
SL1030002	$5.0 \pm 0.5$	$2.1 \pm 0.3$	$10.0 \pm 0.5$	42.0 nom.	5.1 nom.	$3.75 \pm 0.4$	$0.5 \pm 0.05$	Straight
SL1040002	5.0 nom.	2.75 nom.	11.0 max.	38.0 nom.	5.1 nom.	6.0 max.	0.5 nom.	Straight
SL1050001	5.0 nom.	$2.82 \pm 0.5$	$10.0 \pm 0.5$	38.0 nom.	5.1 nom.	$5.0 \pm 0.5$	$0.5 \pm 0.1$	Straight
SL1050001A	5.0 nom.	$2.82 \pm 0.5$	$10.0 \pm 0.5$	38.0 nom.	5.1 nom.	$5.0 \pm 0.5$	$0.5 \pm 0.1$	Inside kinked
SL1050002	5.0 nom.	2.82 nom.	10.0 max.	38.0 nom.	5.0 nom.	4.0 max.	0.5 nom.	Straight
SL1012101	5.0 nom.	$2.75 \pm 0.3$	$10.0 \pm 0.5$	38.0 nom.	5.1 nom.	$5.0 \pm 0.5$	0.5 nom.	Straight

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