

NTC Thermistors, Inrush Current Limiters



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.

FEATURES

- Enhanced protection
- UL recognition applies only to specified components
- 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

RoHS
COMPLIANT

APPLICATIONS

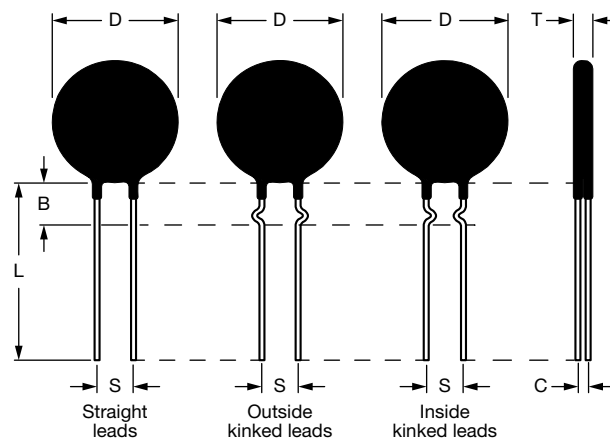
- Residential
- Commercial
- Industrial
- Healthcare
- Renewable energy
- Electric vehicle

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_{AC})	MAX. CAPACITANCE AT 120 V_{AC} (μF)	UL RECOGNITION FILE NUMBER
SL102R005	2	± 20	5	30	265	2000	-
SL102R505	2.5	± 30	5	30	265	2000	E209153
SL104R004	4	± 20	4	20	265	1300	E209153
SL105R002	5	± 20	2	20	265	1300	-
SL105R003	5	± 20	3	20	265	1300	E209153
SL105R003A	5	± 20	3	20	265	1300	E209153
SL105R003B	5	± 20	3	20	265	1300	E209153
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	E209153
SL1010003BT	10	± 20	3	17	265	1000	E209153
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	E209153
SL1025002A	25	± 25	2	20	265	1300	E209153
SL1030002	30	± 15	2	15	265	1000	-
SL1040002	40	± 20	2	15	265	1050	E209153
SL1050001	50	± 25	1.1	18	265	1200	E209153
SL1050001A	50	± 25	1.1	18	265	1200	E209153
SL1050002	50	± 25	2	18	265	900	-
SL1012101	120	± 20	1	14	265	1200	E209153

**ELECTRICAL SPECIFICATIONS**

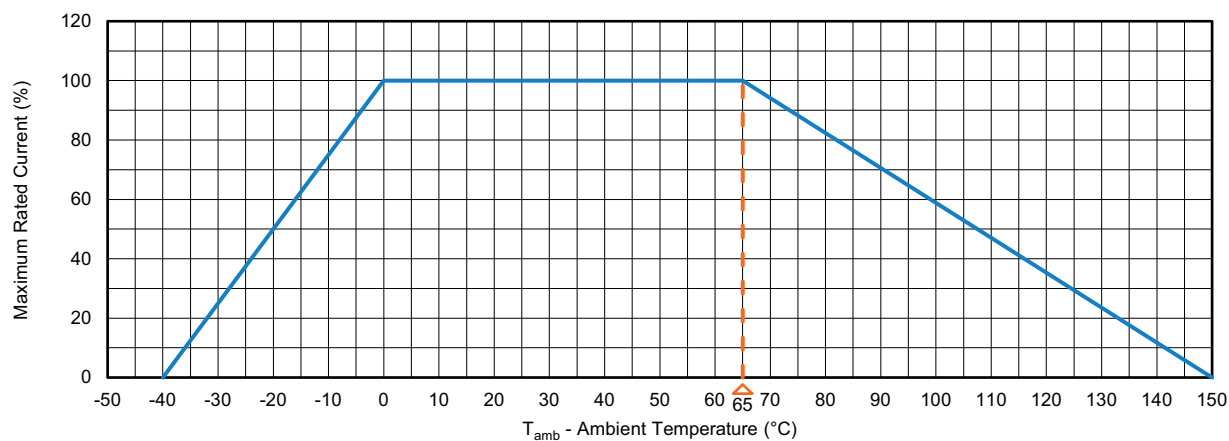
PART NUMBER	RESISTANCE AT 100 % MAX. CURRENT (Ω)	RESISTANCE AT 50 % MAX. CURRENT (Ω)	BODY TEMP. AT 100 % MAX. CURRENT ($^{\circ}\text{C}$)	DISSIPATION FACTOR ($\text{mW}/^{\circ}\text{C}$)	THERMAL TIME CONSTANT (s)	MATERIAL TYPE (FOR BETA AND CURVE)
SL102R005	0.1	0.2	150	10	25	A
SL102R505	0	0.22	165	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
SL105R003A	0.5	0.7	170	11	30	B
SL105R003B	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.	5.1 nom.	4.5 max.	0.5 nom.	Straight
SL104R004	5.0 nom.	2.2 ± 0.3	10.0 max.	38.0 nom.	5.1 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
SL105R003A	5.0 nom.	2.3 nom.	10.0 max.	38.0 nom.	5.1 nom.	4.0 max.	0.5 nom.	Inside kinked
SL105R003B	5.0 nom.	2.3 nom.	10.0 max.	38.0 nom.	5.1 nom.	4.5 max.	0.8 nom.	Outside kinked
SL105R004	5.0 nom.	2.3 nom.	10.0 max.	38.0 nom.	5.1 nom.	4.5 max.	0.5 nom.	Straight
SL105R004A	6.35 nom.	2.3 nom.	10.0 max.	38.0 nom.	5.1 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 ± 0.2	10.0 ± 1.0	38.0 ± 9.0	7.8 nom.	4.0 ± 0.5	0.8 ± 0.1	Straight
SL1010003BT	6.35 nom.	3.0 ± 0.5	10.0 ± 1.0	30.0 nom.	7.8 nom.	5.0 max.	0.8 ± 0.1	Outside kinked
SL1010004	5.0 nom.	2.2 nom.	10.0 max.	38.0 nom.	5.1 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 ± 0.3	10.0 ± 0.5	38.0 ± 3.0	7.8 nom.	5.0 ± 0.5	0.8 ± 0.1	Straight
SL1025002	5.0 ± 0.5	2.35 ± 0.5	10.0 ± 0.5	42.0 nom.	5.1 nom.	5.0 max.	0.5 ± 0.05	Straight
SL1025002A	6.35 nom.	2.54 ± 1.0	10.0 ± 0.5	42.0 nom.	7.8 nom.	5.0 max.	0.8 ± 0.03	Inside kinked
SL1030002	5.0 ± 0.5	2.1 ± 0.3	10.0 ± 0.5	42.0 nom.	5.1 nom.	3.75 ± 0.4	0.5 ± 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 ± 0.5	10.0 ± 0.5	38.0 nom.	5.1 nom.	5.0 ± 0.5	0.5 ± 0.1	Straight
SL1050001A	5.0 nom.	2.82 ± 0.5	10.0 ± 0.5	38.0 nom.	5.1 nom.	5.0 ± 0.5	0.5 ± 0.1	Inside kinked
SL1050002	5.0 nom.	2.82 nom.	10.0 max.	38.0 nom.	5.1 nom.	4.0 max.	0.5 nom.	Straight
SL1012101	5.0 nom.	2.75 ± 0.3	10.0 ± 0.5	38.0 nom.	5.1 nom.	5.0 ± 0.5	0.5 nom.	Straight



DERATING CURVE





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