

NTC Thermistors, Inrush Current Limiters



LINKS TO ADDITIONAL RESOURCES



DESCRIPTION

The standard surge limiter series comprises devices engineered to protect electrical systems by mitigating the impact of potentially harmful power surges.

FEATURES

- Enhanced protection
- Can withstand up to 12 A of continuous current and 240 J of input energy
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

RoHS
COMPLIANT

APPLICATIONS

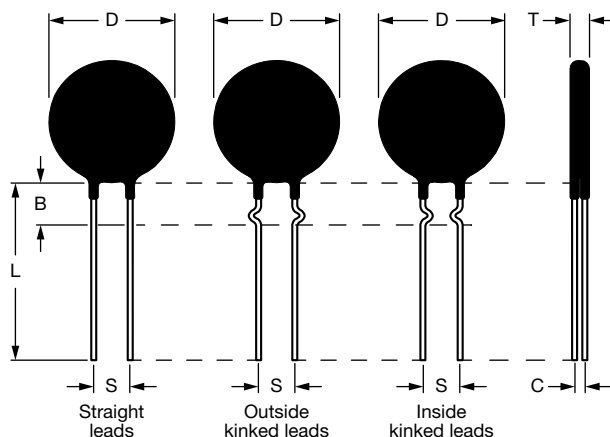
- Residential
- Commercial
- Industrial
- Healthcare
- Renewable energy
- Electric vehicle

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)
SL180R712	0.7	± 25	12	100	265	6900
SL182R508	2.5	± 20	8	90	265	6251
SL185R006	5	± 20	6	75	265	5209
SL187R005	7	± 20	5	75	265	5209
SL187R010	7	± 20	10	50	265	3473
SL1810005	10	± 20	5	75	265	5209
SL1816004	16	± 20	4	75	265	5209
SL1830006	30	± 25	6	65	265	4500
SL1847003	47	± 25	3	45	265	3100

ELECTRICAL SPECIFICATIONS

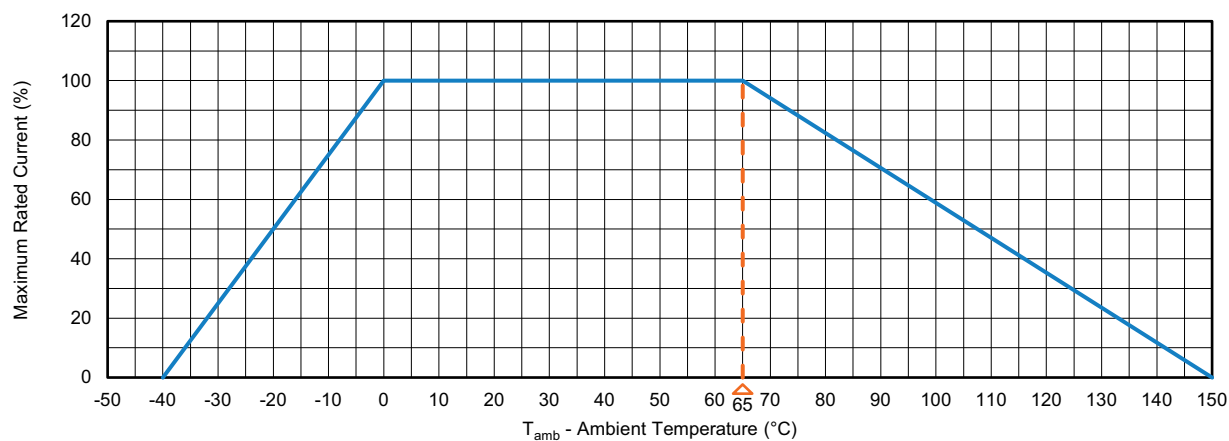
PART NUMBER	RESISTANCE AT 100 % MAX. CURRENT (Ω)	RESISTANCE AT 50 % MAX. CURRENT (Ω)	BODY TEMP. AT 100 % MAX. CURRENT (°C)	DISSIPATION FACTOR (mW/°C)	THERMAL TIME CONSTANT (s)	MATERIAL TYPE (FOR BETA AND CURVE)
SL180R712	0.02	0.06	180	25	50	A
SL182R508	0.06	0.14	180	25	50	B
SL185R006	0.102	0.27	180	25	50	C
SL187R005	0.16	0.4	180	25	50	C
SL187R010	0.145	0.13	172	25	50	G
SL1810005	0.21	0.56	180	25	50	G
SL1816004	0.27	0.65	180	25	50	H
SL1830006	0.40	0.31	189	25	50	I
SL1847003	0.68	1.2	180	25	50	M

MECHANICAL SPECIFICATIONS in millimeters


PART NUMBER	B	C	D	L	S	T	LEAD DIAMETER	LEAD STYLE
SL180R712	10.0 nom.	3.85 nom.	19.0 max.	38.0 nom.	7.8 nom.	6.0 max.	1.0 nom.	Straight
SL180R712A					9.9 nom.			Inside kinked
SL180R712B								Outside kinked
SL182R508	10.0 nom.	3.85 nom.	19.0 max.	38.0 nom.	7.8 nom.	6.0 max.	1.0 nom.	Straight
SL182R508A					9.9 nom.			Inside kinked
SL182R508B								Outside kinked
SL185R006	10.0 nom.	3.90 nom.	19.0 max.	38.0 nom.	7.8 nom.	6.0 max.	1.0 nom.	Straight
SL185R006A					9.9 nom.			Inside kinked
SL185R006B								Outside kinked
SL187R005	10.0 nom.	3.85 nom.	19.0 max.	38.0 nom.	7.8 nom.	6.0 max.	1.0 nom.	Straight
SL187R005A					9.9 nom.			Inside kinked
SL187R005B								Outside kinked
SL187R010	10.0 nom.	4.00 nom.	19.0 max.	38.0 nom.	7.8 nom.	6.0 max.	1.0 nom.	Straight
SL187R010A					9.9 nom.			Inside kinked
SL187R010B								Outside kinked
SL1810005	10.0 nom.	3.70 ± 0.5	19.0 max.	38.0 ± 9.0	7.8 nom.	6.0 max.	1.0 ± 0.1	Straight
SL1810005A					9.9 nom.			Inside kinked
SL1810005B								Outside kinked
SL1816004	10.0 nom.	3.85 nom.	19.0 max.	38.0 nom.	7.8 nom.	6.0 max.	1.0 nom.	Straight
SL1816004A					9.9 nom.			Inside kinked
SL1816004B								Outside kinked
SL1830006	10.0 nom.	4.10 nom.	19.0 max.	38.0 ± 5.0	7.8 nom.	6.0 max.	1.0 nom.	Straight
SL1830006A					9.9 nom.			Inside kinked
SL1830006B								Outside kinked
SL1847003	10.0 nom.	4.00 nom.	19.0 max.	38.0 nom.	7.8 nom.	6.0 max.	1.0 nom.	Straight
SL1847003A					9.9 nom.			Inside kinked
SL1847003B								Outside kinked



DERATING CURVE





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