NTC thermistors for inrush current limiting

Inrush Current Limiters (ICLs)

Series/Type:	**P27**
Ordering code:	**B57127P0xxxM301**
Date:	2015-06-22
Version:	P2

Preliminary data

Application

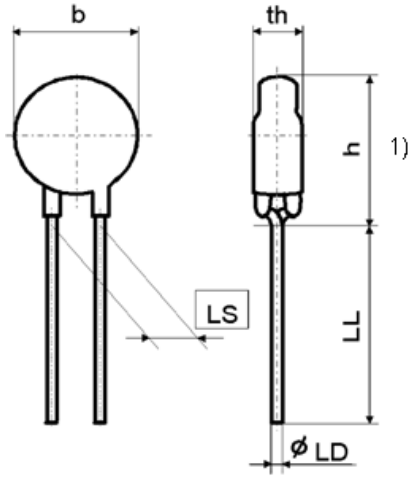
- Switch-mode power supplies
- Soft-start motors, e.g. in vacuum cleaners

Features

- Black coated thermistor disk
- Coating material is flame retardant (UL 94 V-0 approved)
- Kinked leads of tinned copper wire
- Lead spacing 7.5 mm
- High stability of electrical characteristic
- Terminals solderable in accordance with IEC 60068-2-20, test ta, method 1
- ICL support to fulfill the requirements according EN 61000 of power circuits
- UL approval (E69802)
- RoHS-compatible

Preliminary data

Drawing



b	31.0max	mm
th	7.0 max	mm
h	39.0 max	mm
LL	25.0 min	mm
LD	1.0 ± 0.05	mm
LS	7.5 ± 0.8	mm

1) seating plane in accordance with IEC 60717

Approx. weight: 10 g

General technical data

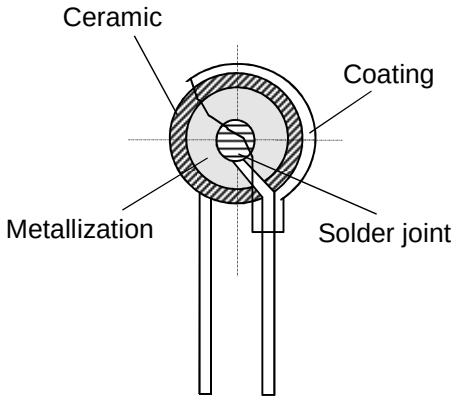
Climatic category	(IEC 60068-1)		55/170/21	
Max. power	(at 25 °C)	P_{max}	12	W
Resistance tolerance		$\Delta R_R/R_R$	± 20	%
Rated temperature		T_R	25	°C
Dissipation factor	(in air)	δ_{th}	approx. 50	mW/K
Thermal cooling time constant	(in air)	τ_{th}	approx. 200	s
Heat capacity		C_{th}	approx. 10000	mJ/K

Electrical specification and ordering codes

R_{25} Ω	I_{max} (0...25 °C) A	C_{test} at 280Vac µF	C_{test} at 240 Vac µF	C_{test} at 120 Vac µF	Max Energy J	R_{min} (at I_{max}, 25 °C) Ω	Ordering Code
0.5	30	1300	3500	16000	200	0.011	B57127P0508M301
1	30	1300	3500	16000	200	0.013	B57127P0109M301
2	23	1300	3500	16000	200	0.022	B57127P0209M301
5	20	1300	3500	16000	200	0.033	B57127P0509M301
7	17	1300	3500	16000	200	0.045	B57127P0709M301
10	15	1300	3500	16000	200	0.053	B57127P0100M301

Preliminary data

Internal construction



The above picture shows the internal construction of EPCOS ICLs.

Note: Coating may have cracks or chips due to acting mechanical force on the wire, but this does not affect the performance of the component.

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