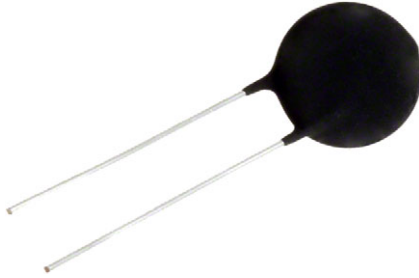


PTC Thermistors, Inrush Current Limiters



DESCRIPTION

With its industry high voltage rating, Vishay Ametherm's inrush PTC thermistors can withstand hundreds of hits of maximum inrush current without degrading.

The device offers a short reset time, and as a PTC thermistor a quick reset will not result in a large inrush current, as its resistance is already at a high state. The result is extremely high reliability and stability in high voltage applications.

This solution provides designers with a more compact and cost-effective alternative to combining a power resistor, relay, and timer on one circuit to achieve the same functionality.

| QUICK REFERENCE DATA | | |
|---------------------------------------|-------------|------------------------------|
| PARAMETER | VALUE | UNIT |
| Resistance at 25 °C (R_{25}) | 10 | Ω |
| Tolerance on R_{25} value | ± 25 | % |
| Transition temperature | 120 | $^{\circ}\text{C}$ |
| Maximum voltage rating | 480 | V_{RMS} |
| Maximum energy rating | 250 | J |
| Switching temperature | 92 to 108 | $^{\circ}\text{C}$ |
| Operating temperature range | -50 to +150 | $^{\circ}\text{C}$ |
| Switch current at 25 °C | 0.8 | A |
| Continuous current at 25 °C | 0.4 | A |
| Heat capacity | 2 | $\text{J}/^{\circ}\text{C}$ |
| Dissipation factor | 22.5 | $\text{mW}/^{\circ}\text{C}$ |
| Thermal time constant | 65 | s |
| Max. body temperature at max. voltage | 174 | $^{\circ}\text{C}$ |

FEATURES

- Short reset time
- High reliability and stability
- Compact and cost-effective solution
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

RoHS
COMPLIANT

APPLICATIONS

- Limiting inrush current in the EV chargers, usually used to protect contractors in the chargers
- Temperature sensing
- Overcurrent protection
- Temperature compensation
- Motor starters
- Liquid level sensing
- Heating elements

MECHANICAL SPECIFICATIONS in millimeters

| | |
|---------------|-------------------|
| | |
| SYMBOL | CL20100120 |
| B | 9.0 \pm 1.0 |
| D | 22.0 max. |
| L | 38.0 nom. |
| S | 7.8 nom. |
| T | 6.0 max. |
| Lead diameter | 1.0 nom. |



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