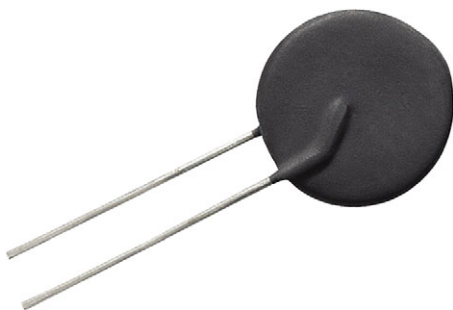


NTC Thermistors, MegaSurge™ Inrush Current Limiters



DESCRIPTION

These power thermistors are rugged and built to last even in the most demanding high power applications.

These inrush current limiters are also used to regulate the release of battery energy in electric vehicles and in pre-charge circuits for many different types of battery chargers.

QUICK REFERENCE DATA

| PARAMETER | VALUE | UNIT |
|---|----------|----------|
| Resistance at 25 °C (R_{25}) | 20 | Ω |
| Tolerance on R_{25} value | ± 25 | % |
| Max. steady-state current up to 65 °C | 10 | A |
| Max. recommended energy rating | 250 | J |
| Actual failure instantaneous energy | 500 | J |
| Max. capacitance at 120 V _{AC} | 17 000 | μ F |
| Max. capacitance at 240 V _{AC} | 4341 | μ F |
| Max. capacitance at 440 V _{AC} | 1003 | μ F |
| Max. capacitance at 680 V _{AC} | 500 | μ F |
| Resistance at 100 % max. current | 0 | Ω |
| Resistance at 50 % max. current | 0.64 | Ω |
| Body temperature at 100 % max. current | 224 | °C |
| Dissipation constant | 45.4 | mW/°C |
| Thermal time constant | 194 | s |
| Material type (for beta and curve) | I | |

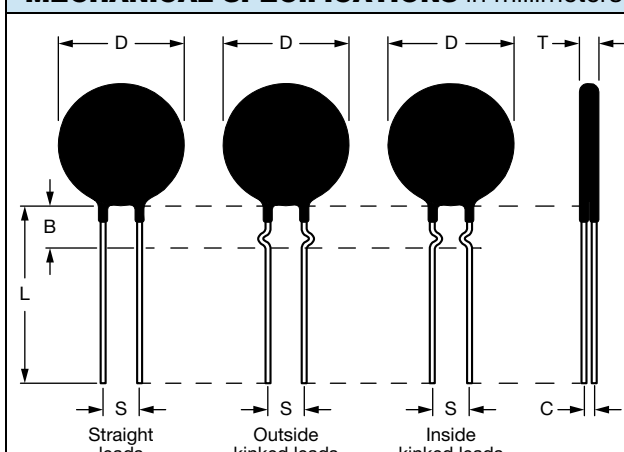
FEATURES

- Ability to withstand high steady-state currents to 10 A and up to 500 J of input energy
- Protect rectifiers and other downstream components from damage caused by sudden current spikes
- Increase safety by eliminating the fire hazard associated with failed relays
- Handle the same amount of energy as power resistors in a smaller package, saving valuable circuit board space
- Provide simple one-component alternatives to using power resistors with timers and relays, reducing costs and greatly simplifying designs
- UL-recognized MegaSurge™ devices are certified for single- and three-phase input voltages up to 480 V_{AC}

APPLICATIONS

- Alternative energy
- Electric vehicles
- Inrush current protection of power supplies, motor controllers, audio amplifiers, battery chargers, frequency generators, plasma cutting tools, MRI machines, and toroidal transformers

MECHANICAL SPECIFICATIONS in millimeters

| | |
|--|------------------|
|  | |
| SYMBOL | MS3220010 |
| B | 7.8 nom. |
| C | 6.7 nom. |
| D | 31.0 max. |
| L | 38.0 nom. |
| S | 7.8 nom. |
| T | 10.0 max. |
| Lead diameter | 1.0 nom. |
| Straight leads | 4.0 max. |



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