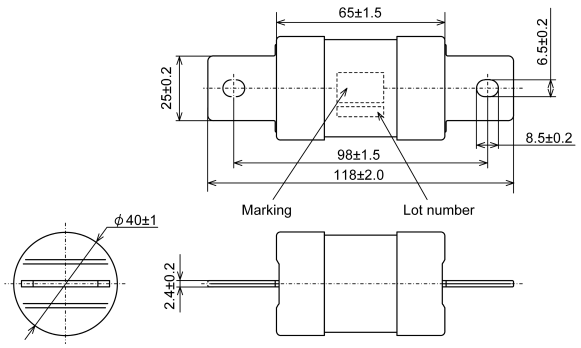
RoHS Pb

AEC-Q200 (Rev. E)

Dimensions and construction:



(mm)

Tube:	Ceramic
End-cap:	Tin plated copper
Terminal:	Tin plated copper
Arc extinguishing material:	Confidential
Marking:	Rated current: 400 A SOC DC800V 400A IR10kA Rated current: 500 A SOC DC500V 500A IR20kA
Lot number:	Example: 23 001 Serial number Last two digits of the manufacturing year on the Christian calendar

Electrical characteristics:

Rated voltage	Certification	Rated current (I_N)	Rated breaking current		Minimum breaking current	Current carrying capacity	Overload operation
DC 800 V	—	400 A	10,000 A	$\tau \leqq 1$ ms	20.0 I_N	Until temperature stabilization occurs at 0.75 I_N	—
DC 500 V		500 A	20,000 A		2.0 I_N		1 s–300 s at 2.0 I_N

Mounting:

Mounting bolt: M6 bolt
Tightening torque: 10 N·m

⚠ Application of excessive stress on a fuse body may damage the fuse.
Make sure to secure the fuse terminal area when you tighten a bolt.

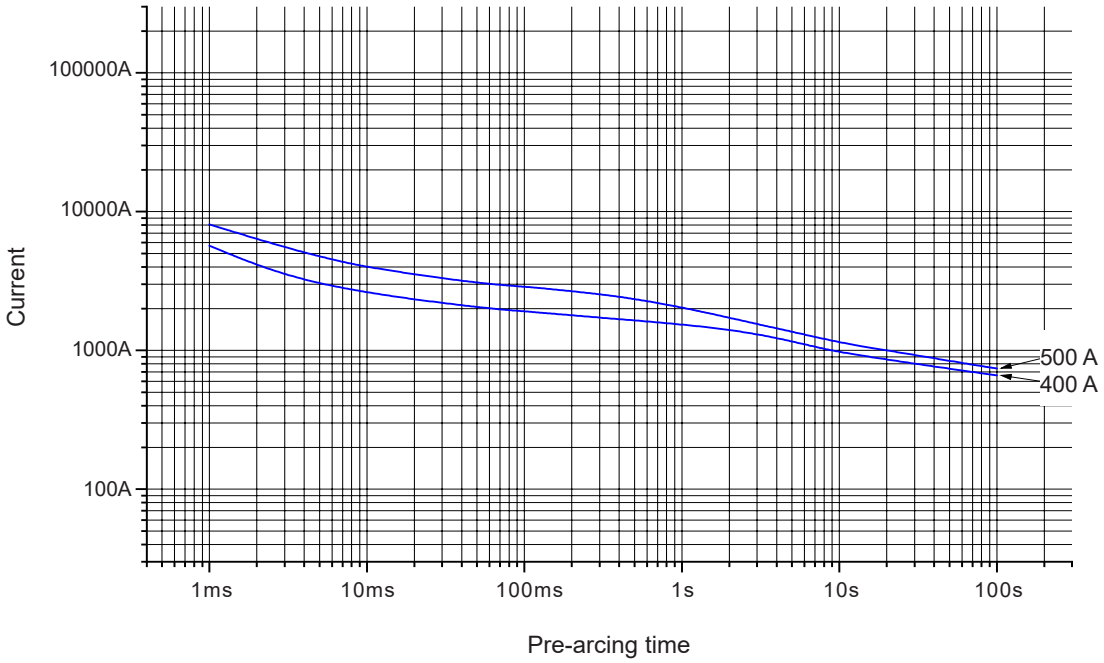
Environmental information:

This product conforms to the EU RoHS Directive 2011/65/EU and 2015/863. The ten hazardous substances (lead, mercury, cadmium, hexavalent chromium, poly brominated biphenyls [PBB], poly brominated diphenyl ethers [PBDE], bis phthalate [DEHP], butyl benzyl phthalate [BBP], dibutyl phthalate [DBP] and diisobutyl phthalate [DIBP]) specified in the EU RoHS Directive are not used intentionally in this product. However, when lead is used in applications exempted from the requirements of the Directive, this will be indicated in the Dimensions and Construction section of the corresponding product specification.

Pre-arcing I-t characteristic:

These I-t curve plots are of the average values of the measurements obtained under the conditions specified by our company.

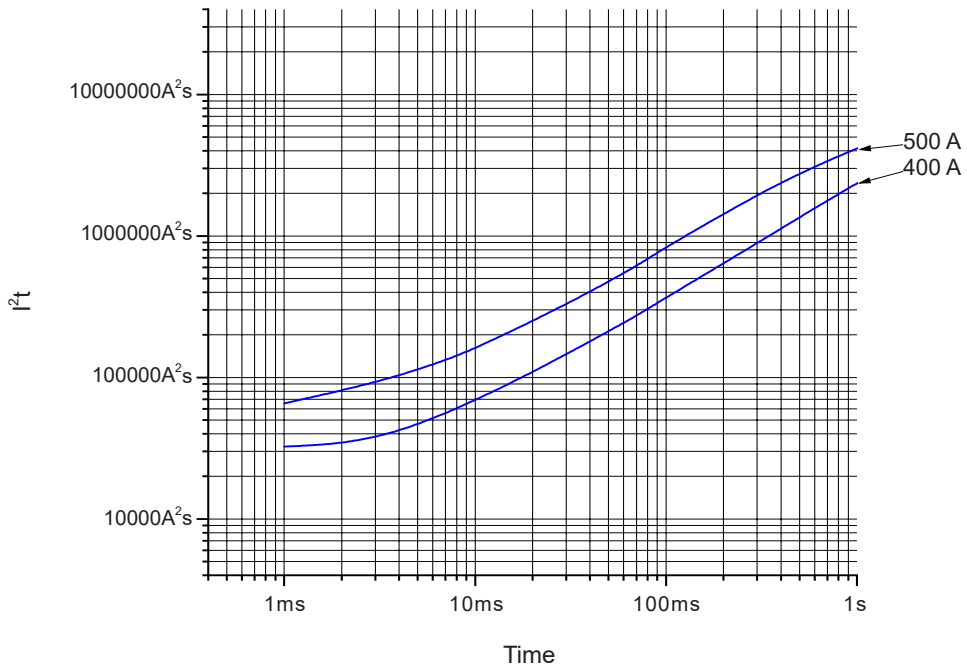
Control No.: 210318



Pre-arcing I^2t-t characteristic:

These I^2t-t curve plots are of the average values of the measurements obtained under the conditions specified by our company.

Control No.: 210318

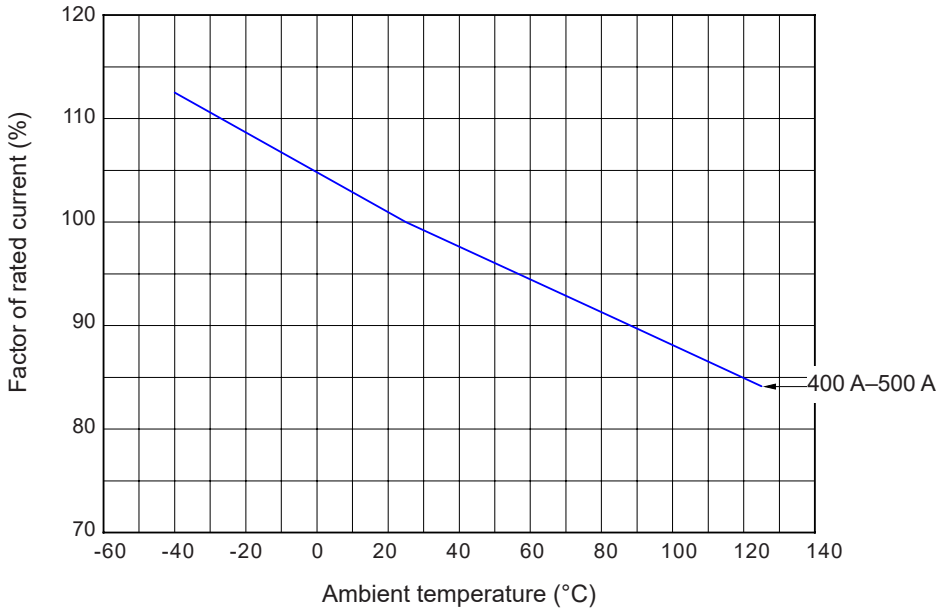


These data are for reference only and are not intended to infer any guaranteed values. Characteristics of the fuse may vary depending on the usage conditions. Always test the fuse under the actual circuit conditions.

Influence of ambient temperature-the re-rating of the rated current:

This chart is a plot of the measurements obtained at the ambient temperatures of −40 °C, 25 °C, and 125 °C under conditions specified by our company. The conditions of your actual application are not considered in this chart. These data are for reference purposes only and are not intended to infer any guaranteed values. Fuse characteristics may vary depending on the usage conditions. Always test the fuse under the actual circuit conditions.

Control No.: 231106



Usage conditions:

∗ Ambient temperature: −40 °C–+125 °C
∗ Ambient humidity: 85% RH or less
Note: Current carrying capacity of the fuse may vary depending on the ambient temperature.

Storage conditions and storage period:

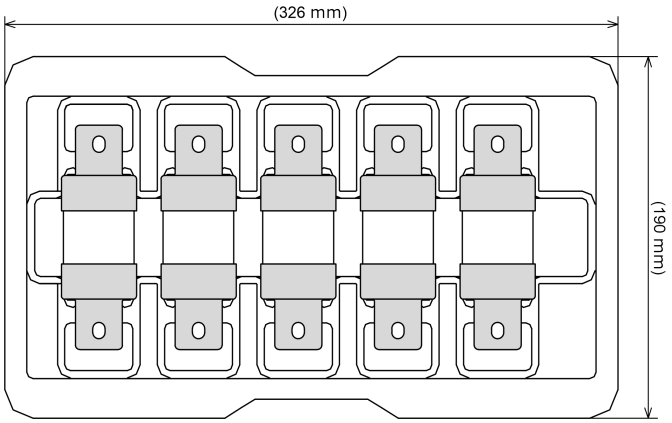
Products packaged as delivered can be stored for one year from the date indicated on the packing label under the following conditions:

∗ Ambient temperature: −30 °C–+40 °C (no condensation)
∗ Ambient humidity: 85% RH or less
∗ Ambient atmosphere: Not exposed to corrosive gas or sea breeze
No visible dust
Not exposed to direct sunlight
∗ Load: No application of load that may cause deformation or degradation of the product.

Packaging:

・Outside dimensions of tray and placement of fuses (Outline drawing)

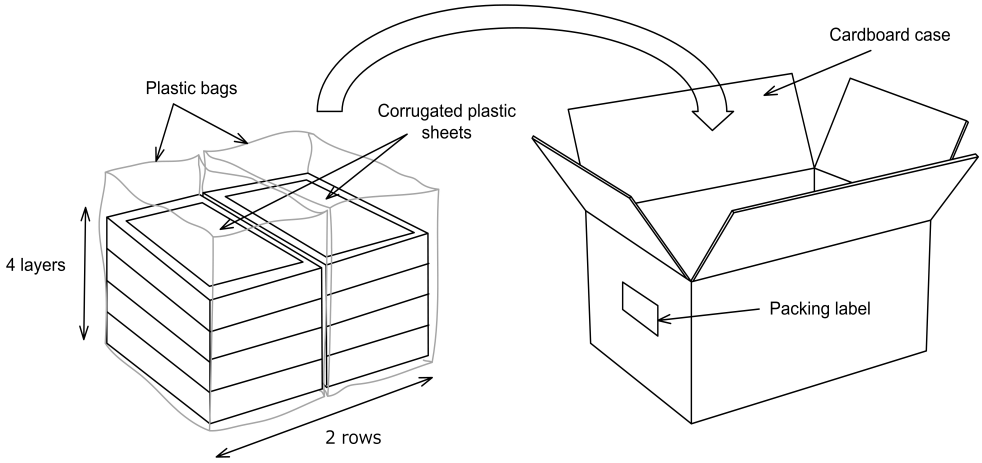
5 fuses/tray



・Packing method

1. Four trays placed with fuses are piled up in layers and corrugated plastic sheets are placed on the top as cover.
2. These layers are placed in a plastic bag.
3. The two plastic bags are packed into a cardboard case and a packing label is affixed to the case.

・40 fuses/cardboard case



Ordering specifications:

SOC product name: PT4065 [rated current]

Contact information:

SOC is a global ISO9001 and IATF16949 registered company headquartered in Japan with subsidiaries in Asia, Europe, and North America.

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Safety Precautions for Fuse Selection and Use:

⚠ WARNING

Read and follow these precautions before selecting and using fuses and protectors (hereafter “fuses”). Failure to properly select, install, and use fuses can result in not only property damage, but also serious injury or death.

Use fuses within their specification requirements. Exposing fuses to conditions that exceed or are outside specifications can lead to, for example, non-operation, nuisance operations, disconnection of the fuse-element, or explosions, and may cause injuries and/or property damage. Please note that breaking conditions for currents below the minimum breaking current and which exceed the rated breaking current are outside the range of the specification conditions. Please use this product after ensuring that the actual breaking conditions in the application are not included in this range.

Fuse performance can vary greatly due to the actual conditions fuses are operated under (ambient temperature, pulse currents, heat shock, mechanical stress, etc.). Please consider all conditions a fuse will be exposed to when making a selection. Depending on the conditions, non-operation, nuisance operations, disconnection of the fuse-element, explosions, or other accidents may occur, and these may cause injuries and/or property damage.

The breaking ability of a fuse will differ between AC and DC circuits. Use fuses with AC voltage ratings in AC circuits and fuses with DC voltage ratings in DC circuits. When using fuses with both AC and DC voltage ratings, attention should be given to any differences in breaking ability. A fuse’s breaking ability indicates the fuse’s ability in an AC or DC circuit. For example, if a fuse with an AC voltage rating is used in a DC circuit, the fuse’s breaking ability will decrease, and injuries and/or property damage may occur.

Check if the circuit voltage is large enough for the fuse’s operation. When the circuit voltage is too small, the decrease in current caused by an increase in the fuse’s resistance may prevent the fuse from operating even for abnormal currents.

Do not use fuses in environments with high humidity or corrosive or flammable gases. Doing so may result in nuisance operations, disconnection of the fuse-element, or an explosion.

Do not use ultrasonic waves to clean fuses. Ultrasonic cleaning may cause disconnection of the fuse-element.

Do not form a fuse’s leads when the fuse is at a temperature of 40 °C or greater. Doing so may result in disconnection of the fuse-element because of the applied stress.

Do not apply coating or potting to any fuses except sealed fuses, such as the MCFA, or their equivalents, including the MCF3. Doing so may cause disconnection of the fuse-element or a change in the fuse’s characteristics. Please be aware that even sealed fuses or the equivalent are not hermetically sealed, and therefore make sure to confirm no coating or potting material has penetrated the interior or any other location of the fuse before use. As coating or potting a fuse will changes its characteristics, make sure to confirm that a coated or potted fuse still satisfies all requirements under actual usage conditions.

Avoid applying excessive force when inserting a fuse into a fuse holder. Doing so may result in the fuse cracking or in contact failure, and this may significantly reduce its ability to work properly or may shorten its life.

When a fuse is used in equipment that directly affects human life or that requires a high degree of reliability, more closely examine and evaluate the fuse in actual circuit conditions than is necessary for use in other general electronic equipment.

Do not touch fuses when they are carrying a current. Doing so may result in electrocution or serious burns.

Fuses obtained as samples should only be used for evaluation. Do not reuse fuses, but instead properly dispose of them.

For final fuse selection, make sure to install the fuse in the actual application in order to confirm the selected fuse satisfies all requirements.