WCPF-51 series

High current fuse

特征/General Information

特点/Main Characteristics

在 70V 时的开路电阻为 1 MΩ/1 Mohm open state resistance at 70V

高抗紧固扭矩能力/High tightening torque resistance



环保标准/Environment Standard

无铅/Lead-free，无卤/Halogen-free，RoHS

工作温度/Operating temperature

-40℃ to +125℃

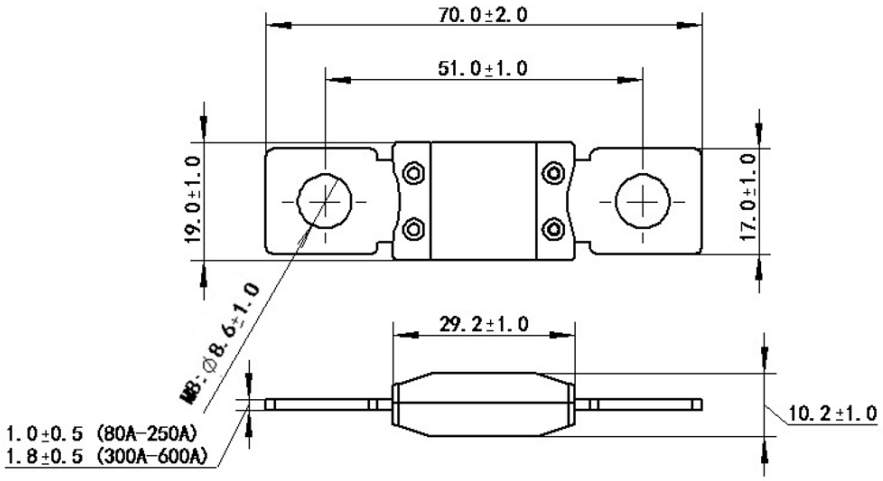
产品认证/Certificates

UL：E534874

TUV：J 50731956

产品尺寸/Dimensions (mm)

产品尺寸/Dimensions



Product Dimensions

Note:

1. 尺寸单位为毫米，具体尺寸和公差请参阅外形图。/Dimensions in mm. Please refer to the outline drawing for dimensions and tolerances.
2. 其他螺孔径可定制。/ Other screw hole diameters are available upon request.

动作时间特性/Clear-Time Characteristics

% of current rating (80A-250A)	Clear-time at 25 °C	
100%	4 hours min.	-
200%	1 seconds min.	15 seconds max.
350%	0.3 seconds min.	5 seconds max.

% of current rating (300A-600A)	Clear-time at 25 °C	
75%	4 hours min.	-
200%	1 seconds min.	15 seconds max.
350%	0.3 seconds min.	5 seconds max.

命名规则/Part Numbering

WC PF 0500A -51

(1) (2) (3) (4)

(1) 公司代码/Company code

(2) 系列代码/Series code: PF

(3) 额定电流/Current rating code: 0500A-500A

(4) 系列代码/ Series code: 51

电气特性/Electrical Characteristics

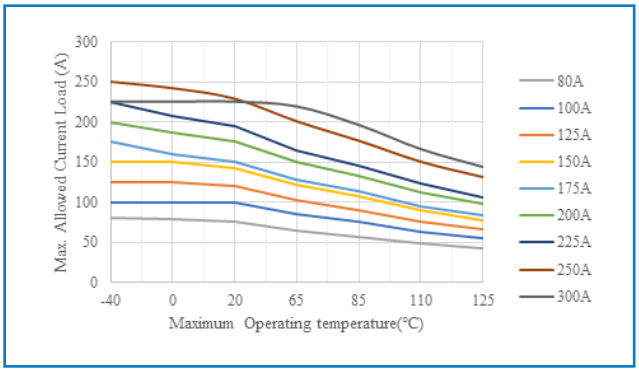
产品代码 Part number	额定电流 Current Rating	额定电压 Voltage Rating	分断能力 Interrupting Rating	冷态电阻 Nominal Cold DCR	标称 I^2t Nominal I^2t	字符 Marking Code
	A			mΩ	(A^2s)	
WCPF0080A-51	80	70 V DC	2500A@70V DC	0.75	34900	80A
WCPF0100A-51	100			0.46	36000	100A
WCPF0125A-51	125			0.37	38000	125A
WCPF0150A-51	150			0.32	58100	150A
WCPF0175A-51	175			0.28	79300	175A
WCPF0200A-51	200			0.24	123600	200A
WCPF0225A-51	225			0.21	142500	225A
WCPF0250A-51	250			0.17	220000	250A
WCPF0300A-51	300			0.15	340000	300A
WCPF0350A-51	350			0.14	495000	350A
WCPF0400A-51	400			0.12	872000	400A
WCPF0450A-51	450			0.10	1224000	450A
WCPF0500A-51	500			0.09	1800000	500A
WCPF0600A-51	600			0.07	2425000	600A

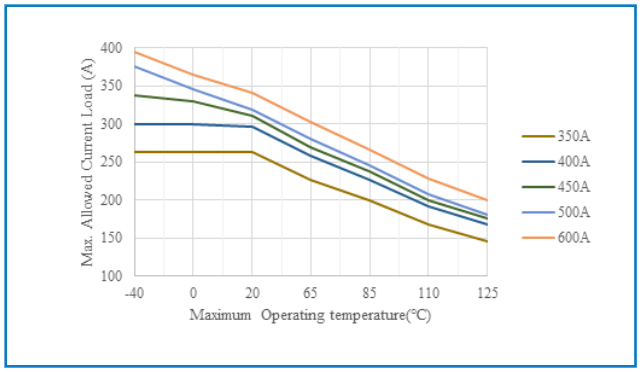
Notice:

1.典型的 I2t 曲线是通过熔断时间（即电弧产生前的熔断时间）计算得出的平均值，该值基于熔断能力试验结果得出。

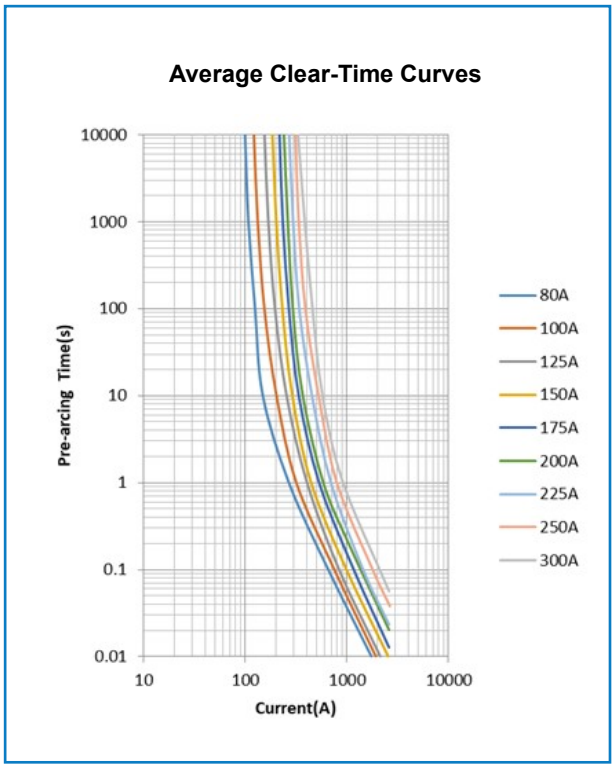
The typical I2t is an average value calculated from the breaking capacity tests by using the melting time before the arcing occurs.

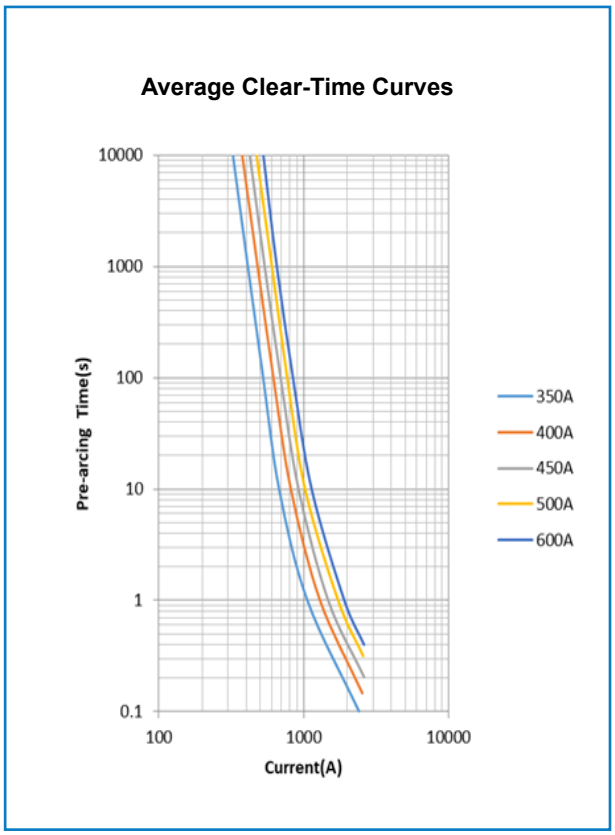
温度降额指南/Temperature De-rating Guideline





熔断曲线/Curves


Average Clear-Time Curves
10000
1000
100
10
1
0.1
0.01
Pre-arcing Time(s)
10
100
1000
10000
Current(A)
80A
100A
125A
150A
175A
200A
225A
250A
300A


Average Clear-Time Curves
10000
1000
100
10
1
0.1
Pre-arcing Time(s)
100
1000
10000
Current(A)
350A
400A
450A
500A
600A

Note:

1.当前建议可能会受到实际应用情况（终端特性、线径等）的影响。/Current recommendation may be impacted by the final condition of theapplication (terminals characteristics, wire size etc..).

● 包装与储存/Packaging and Storage

储存条件/ Storage condition

温度25℃，湿度35%-65% / Temperature 25, humidity 35%-65%.

包装数据/Packaging Data

最小包装数量/ Minmum package for：10pcs

● 注意事项与警告/Cautions and warnings

1、操作处理/Handling

- 贴片保险丝严禁掉落。在保险丝操作处理过程中，不得造成芯片破损/CHIP FUSE must not be dropped. Chip-offs must not be caused during handling of FUSEs.
- 严禁用徒手接触元器件，建议佩戴手套操作/Components must not be touched with bare hands. Gloves are recommended.
- 操作处理期间，应避免保险丝表面受到污染/Avoid contamination of fuse surface during handling.

2、安装/Mounting

- 在安装前、安装过程中及安装后，均不得刮伤电极/Electrode must not be scratched before/during/after the mounting process.
- 用于与保险丝组装的触点和外壳，在安装前必须保持清洁/Contacts and housings used for assembly with fuses have to be clean before mounting.
- 工作过程中，保险丝表面温度可能会非常高。需确保相邻元器件与保险丝保持足够距离，以保证保险丝能正常散热。/During operation, the fuse's surface temperature can be very high (ICL). Ensure that adjacent components are placed at a sufficient distance from the fuse to allow for proper cooling of the fuses.
- 需确保相邻材料的设计工作温度与保险丝表面温度相匹配，且周围部件及材料必须能够承受该温度/Ensure that adjacent materials are designed for operation at temperatures comparable to the surface temperature of the fuse. Be sure that surrounding parts and materials can withstand this temperature.
- 加工过程中，应避免保险丝表面受到污染/Avoid contamination of fuse surface during processing.

3、使用/Operation

- 保险丝仅可在规定的工作温度范围内使用
  Use fuses only within the specified operating temperature range.
- 环境条件不得对保险丝造成损害，保险丝仅可在正常大气环境下使用
  Environmental conditions must not harm the fuses. Use fuses only in normal atmospheric conditions.
- 应防止贴片保险丝接触任何液体和溶剂。必须确保没有水分进入贴片保险丝内部（例如，通过插头端子进入）。若用于测量（如检测规定的电阻 - 温度特性），不得将元器件浸入水中，而应使用适宜的液体（如氟化液 ）
  Contact of chip fuses with any liquids and solvents should be prevented. It must be ensured that no water enters the chip fuse (e.g. through plug terminals). For measurement purposes (checking the specified resistance vs. temperature), the component must not be immersed in water but in suitable liquids.
- 应避免结露和凝露现象
  Avoid dewing and condensation.

Contact Information

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For additional information, please contact your local Sales Representative.
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Product Specification Statement

1.The product specification aims to provide users with a reference regarding various product parameters, performance, and usage. It presents certain aspects of the product's performance in graphical form and is intended solely for users to select product and make product comparisons, enabling users to better understand and evaluate the characteristics and advantages of the product. It does not constitute any commitment, warranty, or guarantee.

2.The product parameters described in the product specification are numerical values, characteristics, and functions obtained through actual testing or theoretical calculations of the product in an independent or ideal state. Due to the complexity of product applications and variations in test conditions and equipment, there may be slight fluctuations in parameter test values. WAYON shall not guarantee that the actual performance of the product when installed in the customer's system or equipment will be entirely consistent with the product specification, especially concerning dynamic parameters. It is recommended that users consult with professionals for product selection and system design. Users should also thoroughly validate and assess whether the actual parameters and performance when installed in their respective systems or equipment meet their requirements or expectations. Additionally, users should exercise caution in verifying product compatibility issues, and WAYON assumes no responsibility for the application of the product.

3.WAYON strives to provide accurate and up-to-date information to the best of our ability. However, due to technical, human, or other reasons, WAYON cannot guarantee that the information provided in the product specification is entirely accurate and error-free. WAYON shall not be held responsible for any losses or damages resulting from the use or reliance on any information in these product specifications. WAYON reserves the right to revise or update the product specification and the products at any time without prior notice, and the user's continued use of the product specification is considered an acceptance of these revisions and updates. Prior to purchasing and using the product, users should verify the above information with WAYON to ensure that the product specification is the most current, effective, and complete. If users are particularly concerned about product parameters, please consult WAYON in detail or request relevant product test reports. Any data not explicitly mentioned in the product specification shall be subject to separate agreement.

4.Users are advised to pay attention to the parameter limit values specified in the product specification and maintain a certain margin in design or application to ensure that the product does not exceed the parameter limit values defined in the product specification. This precaution should be taken to avoid exceeding one or more of the limit values, which may result in permanent irreversible damage to the product, ultimately affecting the quality and reliability of the system or equipment.

5.The design of the product is intended to meet civilian needs and is not guaranteed for use in harsh environments or precision equipment. It is not recommended for use in systems or equipment such as medical devices, aircraft, nuclear power, and similar systems, where failures in these systems or equipment could reasonably be expected to result in personal injury. WAYON shall assume no responsibility for any consequences resulting from such usage.

6.Users should also comply with relevant laws, regulations, policies, and standards when using the product specification. Users are responsible for the risks and liabilities arising from the use of the product specification and must ensure that it is not used for illegal purposes. Additionally, users should respect the intellectual property rights related to the product specification and refrain from infringing upon any third-party legal rights. WAYON shall assume no responsibility for any disputes or controversies arising from the above-mentioned issues in any form.