WCMF series

High current Ceramic Micro Fuse

特征/General Information

应用/ Applications

主要应用于刀片服务器、电源模块、基站电源、不间断电源、大功率电池系统、配电单元、工业工具等。/Mainly used in blade servers, power packs, base station power supplies, uninterruptible power supplies, high power battery systems, power distribution units, industrial tools, etc.



环保标准/Environment Standard

无铅/Lead-free，无卤/Halogen-free，RoHS

工作温度/Operating temperature

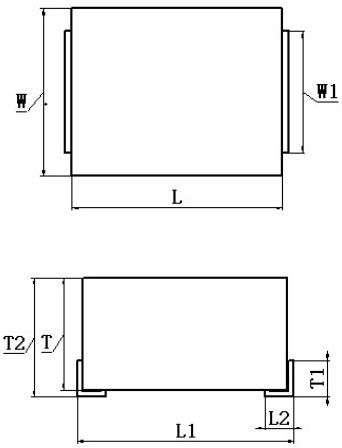
-55℃ to +150℃ (需降额/with de-rating)

产品认证/Certificates

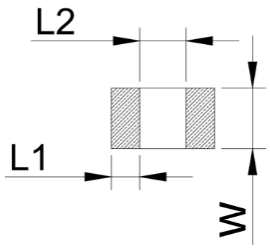
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产品尺寸与推荐焊盘/Dimensions and Recommended Land Pattern(mm)

产品尺寸/Dimensions	推荐焊盘/ Recommended Land Pattern



	mm
W	5.8±0.20
W1	4.2±0.20
T	4.0±0.20
T1	1.3±0.20
T2	4.4±0.20
L	7.3±0.20
L1	7.8±0.20
L2	1.0±0.20



推荐焊盘尺寸/ Recommended Pad Layout	
L1	2.7
L2	4.4
W	5.8

● 动作时间特性/Clear-Time Characteristics

% of current rating	Clear-time at 25 °C
100%	4 hours min
250%	60 seconds max

● 命名规则/Part Numbering

WC MF 0100A 075V

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

(1) 公司代码/Company code: 维安贴片保险丝/ Wayon Chip Fuse

(2) 系列代码/Series code: MF

(3) 额定电流/Current rating code: 0100A-100A

(4) 额定电压/ Voltage rating code: 075V-75VDC

● 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	额定压降 Nominal Voltage Drop	标称 I^2t Nominal I^2t
	A	VDC	A	mΩ	mV	(A^2s)
WCMF0020A125V	20A	125V DC	300A@125V DC 1000A@75V DC 1500A@48V DC	2.1	54.2	120
WCMF0030A125V	30A			1.35	53.5	270
WCMF0040A125V	40A			1.05	59.3	400
WCMF0050A125V	50A			0.85	60.7	600
WCMF0060A075V	60A	75V DC	1000A@75V DC 1500A@48V DC	0.74	60.3	900
WCMF0070A075V	70A			0.61	53.8	1400
WCMF0080A075V	80A			0.53	52.2	2000
WCMF0090A075V	90A			0.48	63.4	2400
WCMF0100A075V	100A			0.44	64.5	3600
WCMF0125A075V	125A			0.38	81.7	6000

Notice:

1. 冷态电阻是在环境温度为 25℃时，以<10%的额定电流测量的。/DC cold resistance are measured at <10% of rated current in ambient temperature of 25℃.

2. 计算 I2T 的电流值为 10 倍额定电流。/The current values used for calculating I2T should be 10In current.

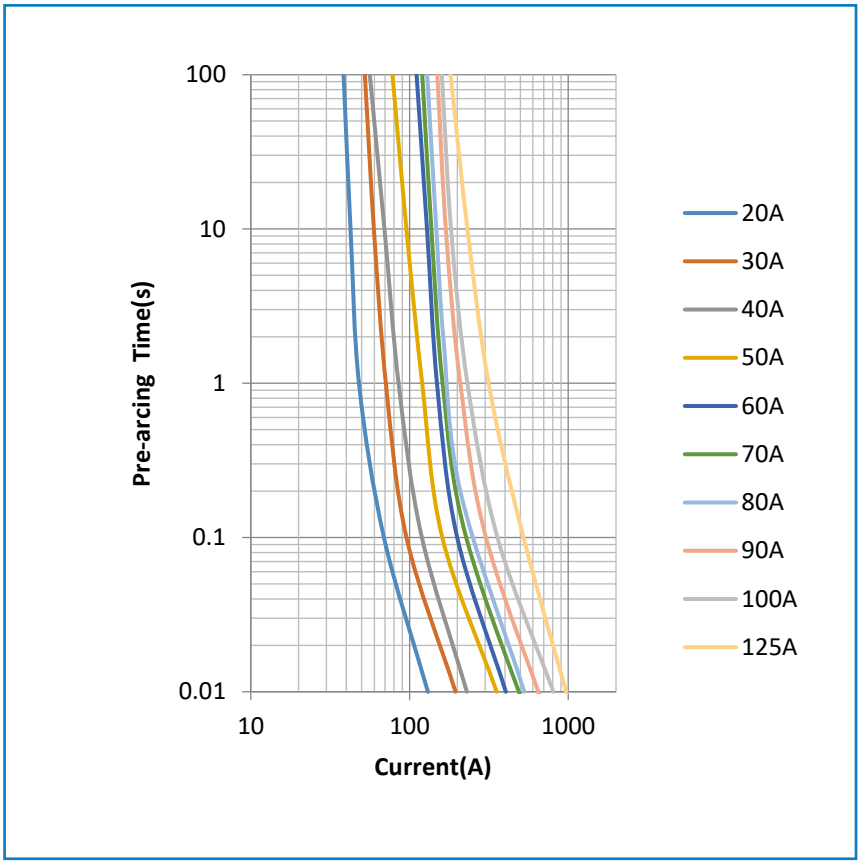
3. 在 100%额定电流下测得的额定压降。/Nominal Voltage Drop measured at 100% rated Current.

* (1) 20A~50A：铜宽 8mm，铜厚 6 oz，单层；/20A~50A: copper width 8 mm, weight 6 oz, single layer;

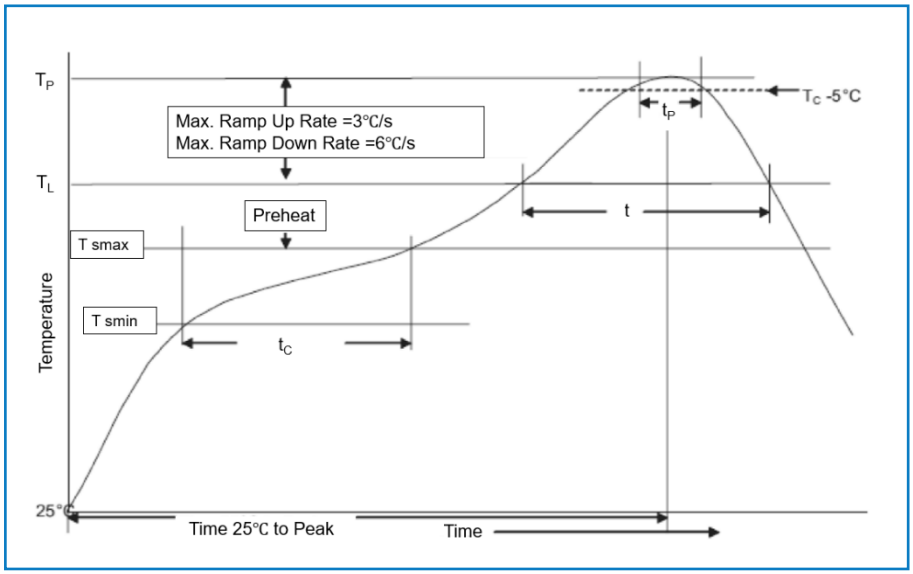
(2) 60A～90A：铜宽 15mm，铜厚 6 oz，单层；/60A~90A: copper width 15 mm, weight 6 oz, single layer;

(3) 100A~125A：铜宽 12.5mm，铜厚 10 oz，单层；/100A~125A: copper width 12.5 mm, weight 10 oz, single layer.

● 动作时间曲线/Average Clear-Time Curves



● 回流焊条件/Solder Reflow Recommendations



曲线特征/Profile Feature		无铅焊接 Pb-Free Assembly
平均升温速率（从 Tsmax 到 Tp） Average Ramp-UP Rate(Tsmax to Tp)		3℃/s Max.
预热 Preheat	最低温度/Temperature Min(Ts min)	150℃
	最高温度/Temperature Max(Ts max)	200℃
	时间（从 Tsmin 到 Ts max） Time(Tsmin to Ts max)	60sec～120sec
液相线温度/Liquidous temperature(T_L) 液相线停留时间/Time at liquidous(t_L)		217℃ 60～150s
封装体峰值温度 Peak package body temperature(Tp)		260℃
在规定等级温度（Tc）±5℃范围内的时间（tP） Time (tP) within 5℃ of the specified classification temperature (Tc)		30s
平均降温速率（从 Tp 到 Tsmax） Average ramp-down rate (T_p to T_{smax})		6℃/s Max
从 25℃升至峰值温度的时间 Time (25℃ to Peak Temperature)		8 minutes Max

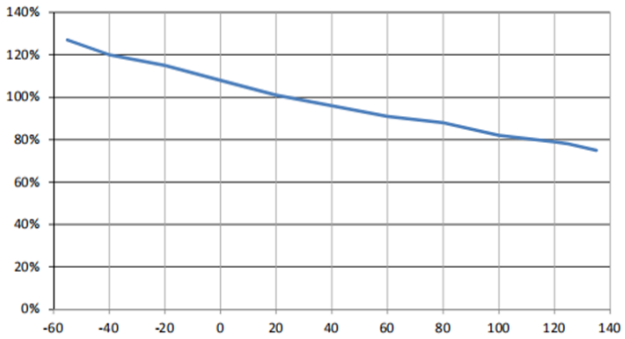
● 电气规格/Electrical Specifications

保险丝选型与温度降额指南/Fuse Selection and Temperature De-rating Guideline:

环境温度会影响熔断器的载流能力。当熔断器在高于 25℃的温度下工作时，需进行 “降额”（de-rated）使用。/The ambient temperature affects the current carrying capacity of fuses. When a fuse is operating at a temperature higher than 25℃, the fuse shall be "de-rated".

从产品目录中选型时，可遵循以下规则：目录fuse额定电流 = 标称工作电流/0.75/最高工作温度下的降额百分比。/To select a fuse from the catalog, the following rule may be followed: Catalog Fuse Current Rating = Nominal Operating Current / 0.75 / % De-rating at the maximum operating temperature.

Temperature Derating Curve



● 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

卷盘包装/Taping Packing: 1000pcs

整箱包装/Master Carton Packing: 6000pcs

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.