

WCPF-51 series

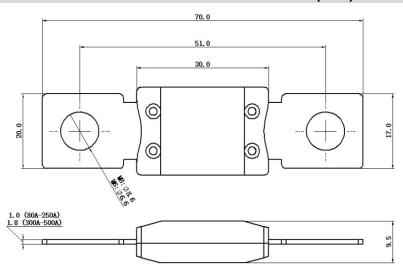
(Rev:A)

HIGH CURRENT FUSE

Features

- 1 Mohm open state resistance at 100V
- High tightening torque resistance
- 51mm pitch prevents mistaken replacement with other types of high-current fuses

Product Dimensions and Recommended Land Pattern (mm)



Product Dimensions

Note: Dimensions in mm. Please refer to the outline drawing for dimensions and tolerances.

Electrical Characteristics

Part number	Current Rating	Voltage Rating	Nominal Cold DCR	Nominal I ² t
	Α		mΩ	A ² s
WCPF0080A-51	80		0.75	34900
WCPF0100A-51	100	70 VDC	0.46	36000
WCPF0125A-51	125		0.37	38000
WCPF0150A-51	150		0.32	58100
WCPF0175A-51	175		0.28	79300
WCPF0200A-51	200		0.24	123600
WCPF0225A-51	225		0.21	142500
WCPF0250A-51	250		0.17	220000
WCPF0300A-51	300		0.15	340000
WCPF0350A-51	350		0.14	495000
WCPF0400A-51	400		0.12	872000
WCPF0450A-51	450		0.10	1224000
WCPF0500A-51	500		0.09	1800000
WCPF0600A-51	600		0.07	2425000

Note: The typical l^2t is an average value calculated from the breaking capacity tests by using the melting time before the arcing occurs.

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■ Clear-Time Characteristics (Fast Acting)

80A-250A

% of current rating	Clear-tim	e at 25℃
100%	4 hours (min)	
200%	1 sec (min)	15 sec (max)
350%	0.3 sec (min)	5 sec (max)

300A-600A

% of current rating	Clear-time at 25 ℃		
75%	4 hours (min)		
200%	1 sec (min)	15 sec (max)	
350%	0.3 sec (min)	5 sec (max)	

Note: Current recommendation may be impacted by the final condition of theapplication (terminals characteristics, wire size etc..).

Part Numbering

WC PF 0200A - 51

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

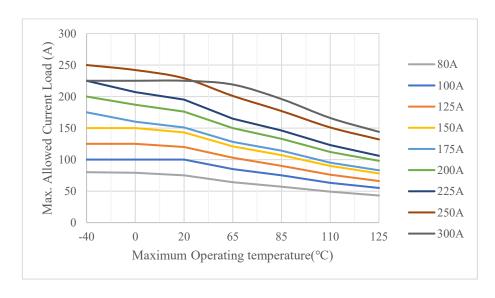
(1) Company code: Wayon Chip Fuse

(2) Action code: F-Fast Acting, S-Slow Blow

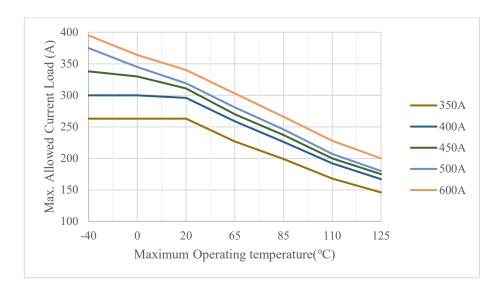
(3) Current rating code:0200A-200 A

(4) Pitch of screw holes: 51mm

■ Temperature De-rating Guideline



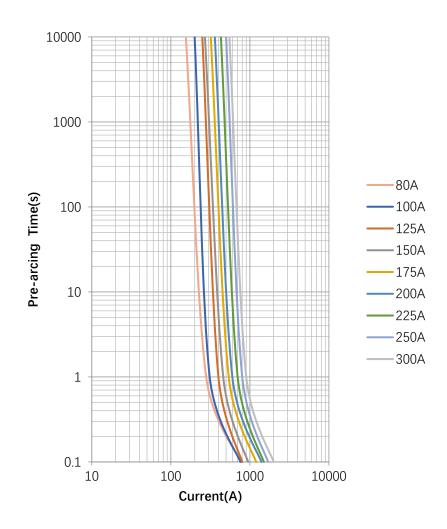
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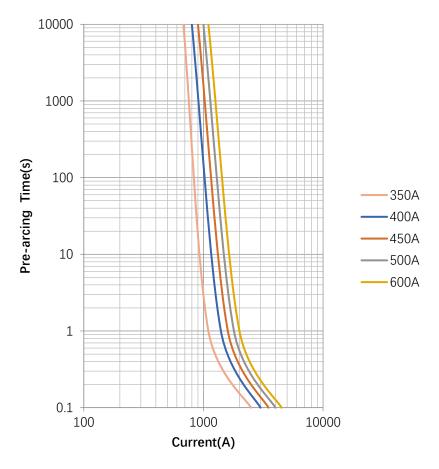


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Curves

Average Clear-Time Curves





Note: Current recommendation may be impacted by the final condition of theapplication (terminals characteristics, wire size etc..).

Reliability Tests:

No.	Test	Requirement	Test condition	Test reference
1	Soldering heat resistance	DCR change ≤±10% No mechanical damage	One dip at 260 ℃ for 60 sec	MIL-STD-202 Method 210
2	Solderability	Minimum95%coverage	One dip at 235℃ for 5sec	MIL-STD-202 Method 208
3	Thermal shock	DCR change ≤±10% No mechanical damage	100 cycles between -65 ℃ and +125℃	MIL-STD-202 Method 107
4	Moisture resistance	DCR change ≤±15% No mechanical damage	10 cycles	MIL-STD-202 Method 106
5	Salt spray	DCR change ≤±10% No mechanical damage	48 hours exposure	MIL-STD-202 Method 101
6	Mechanical vibration	DCR change ≤±10% No mechanical damage	0.4" D.A. or 30 G between 5- 3000 Hz	MIL-STD-202 Method 204
7	Mechanical shock	DCR change ≤±10% No mechanical damage	1500 G, 0.5 ms, half- sine shocks	MIL-STD-202 Method 213
8	Terminal strength	DCR change ≤±10% No mechanical damage	30 sec. hanging for 1206 (1.5kg) and 0603 (0.5KG)	Refer to WAYON Standard
9	Life	No electrical "opens" during testing voltage drop change shall be less than±20% of initial value	80% Rated current ambient temperature +25℃ to +28 ℃,2000 hours	Refer to WAYON Standard
10	Bending	No electrical "opens" during testing	2 mm bending ,more than 5 seconds	Refer to WAYON Standard

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Packaging and Storage:

Storage condition:

Temperature 25, humidity 35%-65%.

Packaging Data

Minmum package for: 132 PCS.

Cautions and warnings:

1、Mounting

- > Electrode must not be scratched before/during/after the mounting process.
- Contacts and housings used for assembly with fuses have to be clean before mounting.
- 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.
- > 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.
- Avoid contamination of fuse surface during processing.

2. Operation

- Use fuses only within the specified operating temperature range.
- > Environmental conditions must not harm the fuses. Use fuses only in normal atmospheric conditions.
- 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 (e.g. Galden).
- > Avoid dewing and condensation.

Notice:

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