

Miniature Fuse, 5 ϕ x20mm, Quick-Acting, Glass Tube, UL/TUV/CCC/CQC.
5F series

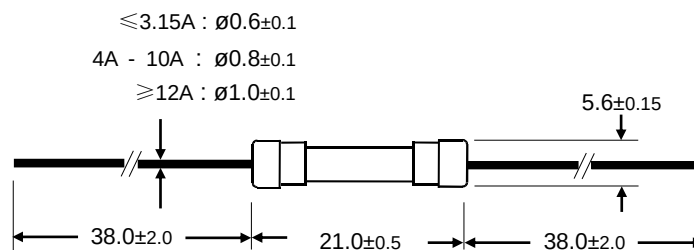
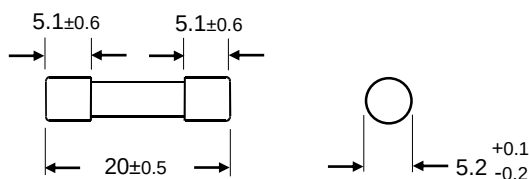

Size	5 ϕ × 20 mm
Ampere Rating	50mA - 20A
Voltage Rating	125V/250Vac
Characteristic	Quick-Acting F
Breaking Capacity	Low Breaking Capacity
Material Tube	Glass
Standards	IEC60127-2 Sheet 2
Agency	UL,CCC,CQC,TUV
Admissible Ambient	Air Temp. -55°C to 125°C



Agency Approvals :

Agency		Agency File Number	Ampere Range	Voltage Range
UL		E166522	50mA-10A	250Vac
			12A-20A	250Vac
			500mA-20A	125Vac
CCC		2020970207000259	500mA-6.3A	250Vac
TUV		J50306203	500mA-20A	250Vac
CQC		CQC09012029363	8A,10A	250Vac
		CQC10012044451	12.5A,16A	
		CQC21012292312	15A,20A	

Dimensions (mm):



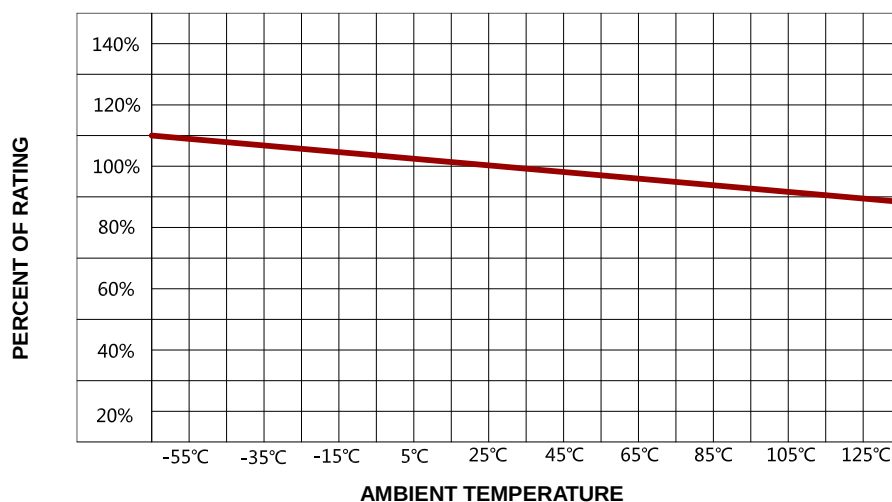
With Pigtail

Product Characteristics :

Component	Material
Fuse Element	Alloy
Caps	Nickel plated Brass
Body Tube	Glass Tube
Solder	Lead-free Solder (500mA-10A)
	Pb Contained High Temperature Solder (50mA-400mA,12A-20A)
Leads	Tin-Plated Copper

Electrical Characteristics :

Testing current	Rating range	Opening Time	
		Min	Max
100%	20A	4 hour	-
150%	50mA-6.3A	1 hour	-
	8A-16A	30 min	
210%	50mA-20A	-	1800 sec
275%	50mA-100mA	10 ms	500 ms
	125mA -20A	50 ms	2 sec
400%	50mA-100mA	3 ms	100 ms
	125mA-6.3A	10 ms	300 ms
	8A-20A	10 ms	400 ms
1000%	50mA-6.3A	-	20 ms
	8A-20A	-	40 ms

Temperature Rerating Curve :

Marking :

Brand logo	Characteristics symbol	Current Rating	Breaking capacity	Voltage Rating	Safety Approval	Series Model	RoHS symbol
	F	***A *	L	***V	Symbol	5F	Ⓒ or Ⓡ **

* <1A: Null "A"/ "mA"

** 1A-10A: Ⓒ 50-400mA, 12-20A: Ⓡ

Reference Information :

Current Rating (A)	Voltage Rating (Vac)	Avg Cold Resistance (Ohm)	Avg V-drop (mV)	Avg Power Dissipation (w)	Nominal Melting I ² T (A ² sec)	Agency Approvals			
						UL	TUV	CCC	CQC
0.050	250	*	*	*	*	●			
0.063	250	*	*	*	*	●			
0.080	250	6.06	668	0.32	0.002	●			
0.100	250	4.47	639	0.39	0.003	●			
0.125	250	3.26	605	0.43	0.006	●			
0.160	250	2.31	571	0.53	0.011	●			
0.200	250	1.64	544	0.62	0.019	●			
0.250	250	1.17	514	0.74	0.035	●			
0.315	250	0.81	485	0.86	0.081	●			
0.400	250	0.56	461	0.97	0.17	●			
0.500	125,250	0.16	92	0.13	0.46	●	●	●	
0.630	125,250	0.13	92	0.17	0.80	●	●	●	
0.800	125,250	0.096	92	0.22	1.22	●	●	●	
1	125,250	0.078	90	0.27	1.65	●	●	●	
1.25	125,250	0.060	90	0.34	2.74	●	●	●	
1.6	125,250	0.044	84	0.41	4.26	●	●	●	
2	125,250	0.033	80	0.48	7.80	●	●	●	
2.5	125,250	0.030	90	0.79	11.1	●	●	●	
3.15	125,250	0.022	88	0.90	19.7	●	●	●	
4	125,250	0.017	86	1.14	32.3	●	●	●	
5	125,250	0.014	86	1.43	51.7	●	●	●	
6.3	125,250	0.011	84	1.80	76.9	●	●	●	
8	125,250	0.008	82	2.28	136	●	●		●
10	125,250	0.006	78	2.55	267	●	●		●
12	125,250	0.0039	58	2.26	576	●	●		
12.5	125,250	0.0037	58	2.38	602	●	●		●
15	125,250	0.0033	60	3.15	812	●	●		●
16	125,250	0.0031	60	3.58	998	●	●		●
20	125,250	0.0027	68	1.36	1239	●	●		●

Note: 1. The Voltage Drop values are measured at 100% rated current. 2. The Power Dissipation values are measured after testing at 150% rated current for one hour. 3. The above figures are typical values for reference only and should not be used as acceptance criteria. 4. Please consult factory for availability of other ratings. 5. Interrupting Rating: 35A or 10In AC 250V, Interrupting Rating may differ based on Agency Approval. See Agency Approval certificate for more details.

Soldering Parameters :
Wave Solder:

Preheat Temperature :	100°C - 150°C
Preheat Time :	60-180 Seconds
Solder Pot Temperature:	260°C Maximum
Soldering Dwell Time:	5 Seconds Maximum

Manual Solder:

Soldering Temperature:	350°C+/-5°C
Soldering Time:	5 Seconds Maximum
Note: These devices are not recommended for IR or Convection Reflow process.	

Average Time Current Curves :

Packing :

Model	Quantity & Description
5F	1000 fuses packed into a cardboard carton (Bulk 220 x 80 x 60mm)
5F (with pigtail)	500 fuses packed into a cardboard carton (Bulk 220 x 80 x 60mm)

Note:
The specifications, descriptions and illustrations indicated in this document are based on current information.
Application testing is strongly recommended. Specifications are subject to change without notice.

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