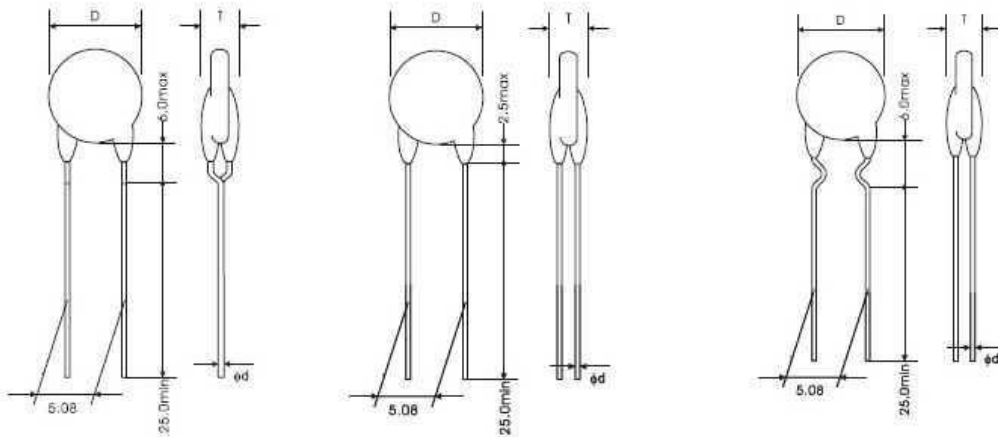




# MZ11A Filament Preheating PTC Thermistor

## 3. Dimension (unit:mm)



Lead shape	Dmax	Tmax	F±1	d±0.05
S	4	4.5	5	0.5
L	5	4.5	5	0.6
A	6	4.5	5	0.6
HV	6	5	5	0.6
B	8	4.5	5	0.6
BHV	8	5	5	0.6
LB	9	4.5	5	0.6
M	11.5	5	5	0.6
SL	14.5	5	7.5	0.8
ML	18.5	5	7.5	0.8
ML	21	5	7.5	0.8

# MZ11A Filament Preheating PTC Thermistor

## 4. Main Technology Parameters

No.	Part Number	Rated Zero-power Resistance Rn (Ω)	Breakdown Voltage. (VAC)	Max Operating Current Imax (mA)	Switch Temperature Tsw (°C)	Dimension (mm)			
						Dmax	Tmax	d	
01	MZ11A-50S68RNU	68±30%	360	200	50±7	4	4.5	0.5	
02	MZ11A-50S101NU	100±30%	400						
03	MZ11A-50S151NU	150±30%	400						
04	MZ11A-50S221NU	220±30%	500						
05	MZ11A-50S331NU	330±30%	600						
06	MZ11A-50S471NU	470±30%	600						
07	MZ11A-50S681NU	680±30%	600						
08	MZ11A-50S102NU	1000±30%	600						
09	MZ11A-50S152NU	1500±30%	600						140
10	MZ11A-50S222NU	2200±30%	600						90
11	MZ11A-50S332NU	3300±30%	600						60
12	MZ11A-50S472NU	4700±30%	600						40
13	MZ11A-75S68RNU	68±30%	360	200	75±7	4	4.5	0.5	
14	MZ11A-75S101NU	100±30%	400						
15	MZ11A-75S151NU	150±30%	400						
16	MZ11A-75S221NU	220±30%	500						
17	MZ11A-75S331NU	330±30%	500						
18	MZ11A-75S471NU	470±30%	500						
19	MZ11A-75S681NU	680±30%	600						
20	MZ11A-75S102NU	1000±30%	600						
21	MZ11A-75S152NU	1500±30%	600						140
22	MZ11A-75S222NU	2200±30%	600						90
23	MZ11A-75S332NU	3300±30%	600						60
24	MZ11A-75S472NU	4700±30%	600						40
25	MZ11A-105S68RNU	68±30%	360	180	105±7	4	4.5	0.5	
26	MZ11A-105S101NU	100±30%	400						
27	MZ11A-105S151NU	150±30%	400						
28	MZ11A-105S221NU	220±30%	400						
29	MZ11A-105S331NU	330±30%	500						
30	MZ11A-105S471NU	470±30%	500						
31	MZ11A-105S681NU	680±30%	600						
32	MZ11A-105S102NU	1000±30%	600						
33	MZ11A-105S152NU	1500±30%	600						140

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34	MZ11A-105S222NU	2200±30%	600	90				
35	MZ11A-120S68RNU	68±30%	360	180	120±7			
36	MZ11A-120S101NU	100±30%	400					
37	MZ11A-120S151NU	150±30%	400					
38	MZ11A-120S221NU	220±30%	400					
39	MZ11A-120S331NU	330±30%	500					
40	MZ11A-120S471NU	470±30%	500					
41	MZ11A-120S681NU	680±30%	600					
42	MZ11A-120S102NU	1000±30%	600					

No.	Part Number	Rated Zero-power Resistance Rn (Ω)	Breakdown Voltage (VAC)	Max Operating Current I <sub>max</sub> (mA)	Switch Temperature T <sub>sw</sub> (°C)	Dimension (mm)							
						D <sub>max</sub>	T <sub>max</sub>	d					
43	MZ11A-85L68RNU	68±30%	360	300	85±7	5.5	4.5	0.6					
44	MZ11A-85L101NU	100±30%	400										
45	MZ11A-85L151NU	150±30%	400										
46	MZ11A-85L221NU	220±30%	400										
47	MZ11A-85L331NU	330±30%	500										
48	MZ11A-85L471NU	470±30%	600										
49	MZ11A-85L681NU	680±30%	600										
50	MZ11A-85L102NU	1000±30%	600										
51	MZ11A-85L152NU	1500±30%	600	200	105±7	5.5	4.5	0.6					
52	MZ11A-85L222NU	2200±30%	600	140									
53	MZ11A-105L68RNU	68±30%	360	300					120±7	5.5	4.5	0.6	
54	MZ11A-105L101NU	100±30%	400										
55	MZ11A-105L151NU	150±30%	400										
56	MZ11A-105L221NU	220±30%	400										
57	MZ11A-105L331NU	330±30%	500										
58	MZ11A-105L471NU	470±30%	600										
59	MZ11A-105L681NU	680±30%	600										
60	MZ11A-120L101NU	100±30%	400		300	120±7	5.5	4.5					0.6
61	MZ11A-120L151NU	150±30%	400										
62	MZ11A-120L221NU	220±30%	400										
63	MZ11A-120L331NU	330±30%	500										
64	MZ11A-120L471NU	470±30%	600										
65	MZ11A-120L681NU	680±30%	600										
66	MZ11A-50A68RNU	68±30%	420	400					50±7	6.5	5.0	0.6	

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67	MZ11A-50A101NU	100±30%	420						
68	MZ11A-50A151NU	150±30%	500						
69	MZ11A-50A221NU	220±30%	500						
70	MZ11A-50A331NU	330±30%	600						
71	MZ11A-50A471NU	470±30%	600						
72	MZ11A-50A681NU	680±30%	600						300
73	MZ11A-50A102NU	1000±30%	600						200
74	MZ11A-50A152NU	1500±30%	600						140
75	MZ11A-50A222NU	2200±30%	600						90
76	MZ11A-50A332NU	3300±30%	600						60
77	MZ11A-50HV68RNU	68±30%	600	400	6.5	5.5	0.6		
78	MZ11A-50HV101NU	100±30%	600						
79	MZ11A-50HV151NU	150±30%	750						
80	MZ11A-50HV221NU	220±30%	750						
81	MZ11A-50HV331NU	330±30%	800						
82	MZ11A-50HV471NU	470±30%	900						
83	MZ11A-50HV681NU	680±30%	900					300	
84	MZ11A-50HV102NU	1000±30%	900					200	
85	MZ11A-50HV152NU	1500±30%	900	120					

No.	Part Number	Rated Zero-power Resistance Rn (Ω)	Breakdown Voltage. (VAC)	Max Operating Current Imax (mA)	Switch Temperature Tsw (°C)	Dimension (mm)			
						Dmax	Tmax	d	
86	MZ11A-75A68RNU	68±30%	420	400	75±7	6.5	5.0	0.6	
87	MZ11A-75A101NU	100±30%	420						
88	MZ11A-75A151NU	150±30%	500						
89	MZ11A-75A221NU	220±30%	500						
90	MZ11A-75A331NU	330±30%	600						
91	MZ11A-75A471NU	470±30%	600						
92	MZ11A-75A681NU	680±30%	700						300
93	MZ11A-75A102NU	1000±30%	700						200
94	MZ11A-75A152NU	1500±30%	800						140
95	MZ11A-75A222NU	2200±30%	800						90
96	MZ11A-75A332NU	3300±30%	800	60					
97	MZ11A-75HV68RNU	68±30%	600	400	75±7	6.5	5.5	0.6	
98	MZ11A-75HV101NU	100±30%	600						
99	MZ11A-75HV151NU	150±30%	750						

## MZ11A Filament Preheating PTC Thermistor

100	MZ11A-75HV221NU	220±30%	750						
101	MZ11A-75HV331NU	330±30%	800						
102	MZ11A-75HV471NU	470±30%	900						
103	MZ11A-75HV681NU	680±30%	900						300
104	MZ11A-75HV102NU	1000±30%	900						200
105	MZ11A-75HV152NU	1500±30%	1000						140
106	MZ11A-75HV222NU	2200±30%	1000						90
107	MZ11A-75HV332NU	3300±30%	1000	60					
108	MZ11A-105A68RNU	68±30%	400						
109	MZ11A-105A101NU	100±30%	400						
110	MZ11A-105A151NU	150±30%	400	400					
111	MZ11A-105A221NU	220±30%	500						
112	MZ11A-105A331NU	330±30%	600						
113	MZ11A-105A471NU	470±30%	600						
114	MZ11A-105A681NU	680±30%	700	300	105±7	6.5	5.0	0.6	
115	MZ11A-105A102NU	1000±30%	700	200					
116	MZ11A-120A68RNU	68±30%	400						
117	MZ11A-120A101NU	100±30%	400						
118	MZ11A-120A151NU	150±30%	400	400					
119	MZ11A-120A221NU	220±30%	500						
120	MZ11A-120A331NU	330±30%	500						
121	MZ11A-120A471NU	470±30%	600						
122	MZ11A-50B68RNU	68±30%	400	800	50±7	8.5	5.0	0.6	
123	MZ11A-50B101NU	100±30%	500						
124	MZ11A-50B151NU	150±30%	500						
125	MZ11A-50B221NU	220±30%	600						
126	MZ11A-50B331NU	330±30%	600						620
127	MZ11A-50B471NU	470±30%	600						430
128	MZ11A-50B681NU	680±30%	600						300
129	MZ11A-50B102NU	1000±30%	600	200					
130	MZ11A-75B68RNU	68±30%	400						
131	MZ11A-75B101NU	100±30%	500	800					
132	MZ11A-75B151NU	150±30%	500						
133	MZ11A-75B221NU	220±30%	600						
134	MZ11A-75B331NU	330±30%	600						620
135	MZ11A-75B471NU	470±30%	600	430					75±7
136	MZ11A-85B68RNU	68±30%	400	800					
					85±7	8.5	5.0	0.6	

## MZ11A Filament Preheating PTC Thermistor

137	MZ11A-85B101NU	100±30%	500					
138	MZ11A-85B151NU	150±30%	500					
139	MZ11A-85B221NU	220±30%	600					
140	MZ11A-85B331NU	330±30%	600	620				
141	MZ11A-85B471NU	470±30%	600	430				
142	MZ11A-105B68RNU	68±30%	400		105±7	8.5	5.0	0.6
143	MZ11A-105B101NU	100±30%	500	800				
144	MZ11A-105B151NU	150±30%	500					
145	MZ11A-105B221NU	220±30%	600					
146	MZ11A-105B331NU	330±30%	600	620				
147	MZ11A-105B471NU	470±30%	600	430				
148	MZ11A-75BHV68RNU	68±30%	600		75±7	8.5	5.5	0.6
149	MZ11A-75BHV101NU	100±30%	600	800				
150	MZ11A-75BHV151NU	150±30%	750					
151	MZ11A-75BHV221NU	220±30%	900					
152	MZ11A-75BHV331NU	330±30%	1000	620				
153	MZ11A-75BHV471NU	470±30%	1000	430				
154	MZ11A-75BHV681NU	680±30%	1000	300				
155	MZ11A-75BHV102NU	1000±30%	1000	200				
156	MZ11A-75BHV152NU	1500±30%	1000	240				
157	MZ11A-75BHV222NU	2200±30%	1000	90				

Remark: if the preheating time is too short ,can select PTC thermistor with low resistance,high courie temperature or big size,vice versa.Besides,customized is available.