

PTC Thermistor Series

KLS6-MZ11A Filament Preheat PTC Thermistor Series

1. Applications

It can be applied in the electronic ballast of kinds of fluorescent lamps and electronic energy-saving lamps. No necessity to modify the circuitry. If proper thermistor is parallel connected on the two ends of resonant capacitor of lamps, cold startup of electronic ballast and electronic energy-saving lamps will turn into the Preheat startup which can make the Preheating time reach 0.4-2s and extend the life of service to three times of the primary.

2. Characteristics

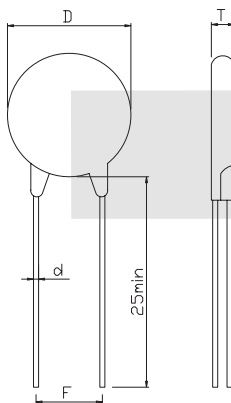
Execution utilizing the characteristic of PTC material, Small size of product, High voltage resistance, Longevity of service, Low power when normally working.

3. Application principal

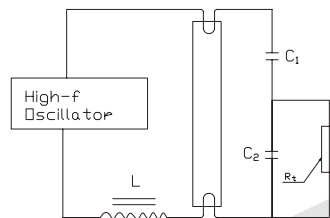
Preheat startup principle of PTC thermistor is showed in following chart: At initial moment of turning on the switch, R_1 is on normal temperature state, its resistance is far below that of C_2 , and the current passes through C_1 and R_1 , and comes into being loop warming up the Filament, About 0.4-2s later, the temperature of R_1 exceeds courier temperature T_c and jumps into the state of high resistance far over that of C_2 , and the current passes through C_1 , C_2 , comes into being loop and results in LC resonance which generates high voltage to light the lamps.



4. Dimension (Unit: mm)



Type Code	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
LV	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
LL	21	5	7.5	0.8



ORDER INFORMATION

KLS6-MZ11A - 75 - HV -XXX N U

Part Number: KLS6-MZ11A - 75 - HV -XXX N U
 Filament Preheat PTC Thermistor Mz11A Series
 Temperature of switch: 50-50°C 75-75°C 85-85°C 105-105°C 120-120°C
 Shape of lead: U-in-formed S-straight A-axis wind
 Tol. of resistance: N-± 30% V-± 25% M-± 20% K-± 10% X-else
 Rated zero power resistance: 102=1000Ω 68R=68Ω
 Type code: S-small type A-Basic type HV-High voltage

PTC Thermistor Series

KLS6-MZ11A Filament Preheat PTC Thermistor Series

Main Techno-Parameter

No.	Part No.	Rated Zero-power Resistance Rn (Ω)	Break Down Vol. (Vac)	Max. W. C. I max (mA)	Switch Temp. Tsw (°C)	Dimensions (mm)						
						Dmax	Tmax	d				
1	MZ11A-50S68RNU	68 ± 30%	360	200	50 ± 7	4	4.5	0.5				
2	MZ11A-50S101NU	100 ± 30%	400									
3	MZ11A-50S151NU	150 ± 30%	400									
4	MZ11A-50S221NU	220 ± 30%	500									
5	MZ11A-50S331NU	330 ± 30%	600									
6	MZ11A-50S471NU	470 ± 30%	600									
7	MZ11A-50S681NU	680 ± 30%	600									
8	MZ11A-50S102NU	1000 ± 30%	600									
9	MZ11A-50S152NU	1500 ± 30%	600	100	75 ± 7	4	4.5	0.5				
10	MZ11A-50S222NU	2200 ± 30%	600									
11	MZ11A-50S332NU	3300 ± 30%	600	70								
12	MZ11A-50S472NU	4700 ± 30%	600	50								
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%	600									
19	MZ11A-75S681NU	680 ± 30%	600									
20	MZ11A-75S102NU	1000 ± 30%	600									
21	MZ11A-75S152NU	1500 ± 30%	600	100	75 ± 7	4	4.5	0.5				
22	MZ11A-75S222NU	2200 ± 30%	600									
23	MZ11A-75S332NU	3300 ± 30%	600	70								
24	MZ11A-75S472NU	4700 ± 30%	600	50								

ORDER INFORMATION

KLS6-MZ11A - 75 - HV -XXX N U

Part Number _____
 Filament Preheat PTC Thermistor Mz11A Series
 Temperature of switch: 50-50°C 75-75°C 85-85°C 105-105°C 120-120°C
 Shape of lead: U-in-formed S-straight A-axis wind
 Tol.of resistance: N± 30% V± 25% M± 20% K± 10% X-else
 Rated zero power resistance 102=1000Ω 68R=68Ω
 Type code: S-small type A-Basic type HV-High voltage

PTC Thermistor Series

KLS6-MZ11A Filament Preheat PTC Thermistor Series

No.	Part No.	Rated Zero-power Resistance Rn (Ω)	Break Down Vol. (Vac)	Max. W. C. I max (mA)	Switch Temp. Tsw (°C)	Dimensions (mm)		
						Dmax	Tmax	d
25	MZ11A-105S68RNU	68 ± 30%	360	200	150 ± 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-75S681NU	680 ± 30%	600					
32	MZ11A-75S102NU	1000 ± 30%	600	100	120 ± 7	6	4.5	0.6
33	MZ11A-75S152NU	1500 ± 30%	600					
34	MZ11A-120S68RNU	68 ± 30%	360					
35	MZ11A-120S101NU	100 ± 30%	400					
36	MZ11A-120S151NU	150 ± 30%	400					
37	MZ11A-120S221NU	220 ± 30%	400					
38	MZ11A-120S331NU	330 ± 30%	500					
39	MZ11A-120S471NU	470 ± 30%	500	400	50 ± 7	6	4.5	0.6
40	MZ11A-120S681NU	680 ± 30%	600					
41	MZ11A-50A68RNU	68 ± 30%	420					
42	MZ11A-50A101NU	100 ± 30%	420					
43	MZ11A-50A151NU	150 ± 30%	500					
44	MZ11A-50A221NU	220 ± 30%	500					
45	MZ11A-50A331NU	330 ± 30%	600					
46	MZ11A-50A471NU	470 ± 30%	600	300	75 ± 7	6	4.5	0.6
47	MZ11A-50A681NU	680 ± 30%	600					
48	MZ11A-50S102NU	1000 ± 30%	600					
49	MZ11A-50A152NU	1500 ± 30%	600					
50	MZ11A-50A222NU	2200 ± 30%	600					
51	MZ11A-75A68RNU	68 ± 30%	420					
52	MZ11A-75A101NU	100 ± 30%	420					
53	MZ11A-75A151NU	150 ± 30%	500	300	75 ± 7	6	4.5	0.6
54	MZ11A-75A221NU	220 ± 30%	500					
55	MZ11A-75A331NU	330 ± 30%	600					
56	MZ11A-75A471NU	470 ± 30%	600					
57	MZ11A-75A681NU	680 ± 30%	600					
58	MZ11A-75A102NU	1000 ± 30%	600					
59	MZ11A-75A152NU	1500 ± 30%	600					
60	MZ11A-75A102NU	220 ± 30%	600	100				



PTC Thermistor Series

KLS6-MZ11A Filament Preheat PTC Thermistor Series

VI

No.	Part No.	Rated Zero-power Resistance Rn (Ω)	Break Down Vol. (Vac)	Max. W. C. I max (mA)	Switch Temp. Tsw (°C)	Dimensions (mm)		
						Dmax	Tmax	d
61	MZ11A-105A68RNU	68 ± 30%	400	400	105 ± 7	6	4.5	0.6
62	MZ11A-105A101NU	100 ± 30%	400					
63	MZ11A-105A151NU	150 ± 30%	400					
64	MZ11A-105A221NU	220 ± 30%	500					
65	MZ11A-105A331NU	330 ± 30%	600					
66	MZ11A-105A471NU	470 ± 30%	600					
67	MZ11A-105A681NU	680 ± 30%	600	300	120 ± 7	6	4.5	0.6
68	MZ11A-105A102NU	1000 ± 30%	600					
69	MZ11A-120A68RNU	68 ± 30%	400	400				
70	MZ11A-120A101NU	100 ± 30%	400	400				
71	MZ11A-120A151NU	150 ± 30%	400	400				
72	MZ11A-120A221NU	220 ± 30%	500	400				
73	MZ11A-120A331NU	330 ± 30%	600	400	50 ± 7	6	5	0.6
74	MZ11A-120A471NU	470 ± 30%	600					
75	MZ11A-50HV68RNU	68 ± 30%	600					
76	MZ11A-50HV101NU	100 ± 30%	600					
77	MZ11A-50HV151NU	150 ± 30%	750					
78	MZ11A-50HV221NU	220 ± 30%	750					
79	MZ11A-50HV331NU	330 ± 30%	800	250	75 ± 7	6	5	0.6
80	MZ11A-50HV471NU	470 ± 30%	900					
81	MZ11A-50HV681NU	680 ± 30%	900					
82	MZ11A-50HV102NU	1000 ± 30%	900					
83	MZ11A-50HV152NU	1500 ± 30%	900					
84	MZ11A-75HV68RNU	68 ± 30%	600					
85	MZ11A-75HV101NU	100 ± 30%	660					
86	MZ11A-75HV151NU	150 ± 30%	750					
87	MZ11A-75HV221NU	220 ± 30%	750					
88	MZ11A-75HV331NU	330 ± 30%	800					
89	MZ11A-75HV471NU	470 ± 30%	900					
90	MZ11A-75HV681NU	680 ± 30%	900	250	100	6	5	0.6
91	MZ11A-75HV102NU	1000 ± 30%	900					
92	MZ11A-75HV152NU	500 ± 30%	900					
93	MZ11A-75HV222NU	2200 ± 30%	900					
94	MZ11A-75HV332NU	3300 ± 30%	900					
				70				

PTC Thermistor Series

KLS6-MZ11A Filament Preheat PTC Thermistor Series

No.	Part No.	Rated Zero-power Resistance Rn (Ω)	Break Down Vol. (Vac)	Max. W. C. I max (mA)	Switch Temp. Tsw (°C)	Dimensions (mm)		
						Dmax	Tmax	d
95	MZ11A-50B68RNU	68±30%	400	800	50±7	8	4.5	0.6
96	MZ11A-50B101NU	100±30%	500					
97	MZ11A-50B151NU	150±30%	500					
98	MZ11A-50B221NU	220±30%	600					
99	MZ11A-50B331NU	330±30%	600					
100	MZ11A-50B471NU	470±30%	600					
101	MZ11A-50B681NU	680±30%	600					
102	MZ11A-50B102NU	1000±30%	600					
103	MZ11A-85B68RNU	68±30%	400	800	85±7	8	4.5	0.6
104	MZ11A-85B101NU	100±30%	500					
105	MZ11A-85B151NU	150±30%	500					
106	MZ11A-85B221NU	220±30%	600					
107	MZ11A-85B331NU	330±30%	600					
108	MZ11A-85B471NU	470±30%	600					
109	MZ11A-85B681NU	680±30%	600					
110	MZ11A-85B102NU	1000±30%	600					
111	MZ11A-105B68RNU	68±30%	400	800	105±7	8	5	0.6
112	MZ11A-105B101NU	100±30%	500					
113	MZ11A-105B151NU	150±30%	500					
114	MZ11A-105B221NU	220±30%	600					
115	MZ11A-105B331NU	330±30%	600					
116	MZ11A-105B471NU	470±30%	600					
117	MZ11A-105B681NU	680±30%	600					
118	MZ11A-105B102NU	1000±30%	600					
119	MZ11A-75BHV68RNU	68±30%	600	800	75±7	8	5	0.6
120	MZ11A-75BHV101NU	100±30%	600					
121	MZ11A-75BHV151NU	150±30%	750					
122	MZ11A-75BHV221NU	220±30%	900					
123	MZ11A-75BHV331NU	330±30%	900					
124	MZ11A-75BHV471NU	470±30%	900					
125	MZ11A-75BHV681NU	680±30%	900					
126	MZ11A-75BHV102NU	1000±30%	900					
127	MZ11A-75BHV152NU	1500±30%	900					
128	MZ11A-75BHV222NU	2200±30%	900					

Remark: If the Preheating time is too short, PTC thermistor of low resistance, high couriertemp.of big buld should be selected, vice versa.Besides, Peculiar manufacture capable according to the demands of users.