



MZII A 型灯丝预热用 PTC 热敏电阻器

MZII A Filament Preheating PTC Thermistors

●应用范围 Application

用于各种荧光灯电子镇流器。电子节能灯中，不必改动线路。将适当的热敏电阻器直接跨接在灯管的谐振电容器两端，可以变电子镇流器、电子节能灯的硬启动为预热启动。使灯丝的预热时间达 0.4—0.2 秒。可延长灯管寿命三倍以上。

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 Preheats startup which can make the Preheating time reach 0.4-25 and extend the life of service to three times of the primary,

●特点 Characteristics

利用材料 PTC 特性制作而成。产品体积小，耐电压高，寿命长，正常工作时功耗小。

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

●产品标志说明 Specification

| | | | | | |
|-------|----|----|-----|---|---|
| MZ11A | 75 | HV | 102 | N | U |
|-------|----|----|-----|---|---|

注：型号 Model

②-开关温度：Temperature of switch

50—50℃ 75—75℃ 85-85℃ 105-105℃ 120-120℃

⑧类型代号 Type code

S-微型 Small type A-基本型 Basic type HV-高压型 High voltage type

B-加强型 Strengthen type BHV-超强型 Super strong type

④额定零功率电阻 Rated zero power resistance

102—10000 68R — 6B0

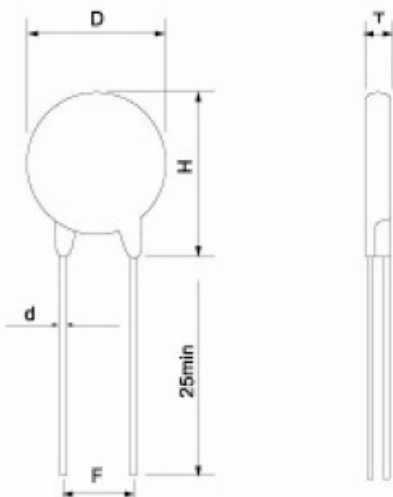
(电阻允差 Tol. of resistance

N-±30% V-±25% M-±20% K-±10% X-其它 else

引线形状 shape of lead

U-内弯 in-formed S-直形 straight A-轴弯 axis wind

外形结构和尺寸 Dimensions(mm)



| 类型代号 | 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 |



主要技术参数

| 序号 | 型号 Type | 额定零功率电阻值 (Ω) Rated zero power resistance | 耐电压 (VAC)Break down Vol | 最大可重复通断电流 (mA) Max W. C | 耐流能力 (mA) . | 开关温度 (°C) Switch temp | 外形尺寸 (mm) | | | | | | |
|----|------------------|---|--------------------------|-------------------------|-------------|--------------------------|-----------|------|-----|-------|---|-----|-----|
| | | | | | | | Dmax | Tmax | d | | | | |
| 01 | WMZ11A-50S68RNU | 68±30% | 360 | 200 | 300 | 50±7 | 4 | 4.5 | 0.5 | | | | |
| 02 | WMZ11A-50S101NU | 100±30% | 400 | | | | | | | | | | |
| 03 | WMZ11A-50S151NU | 150±30% | 400 | | | | | | | | | | |
| 04 | WMZ11A-50S221NU | 220±30% | 500 | | | | | | | | | | |
| 05 | WMZ11A-50S331NU | 330±30% | 600 | | | | | | | | | | |
| 06 | WMZ11A-50S471NU | 470±30% | 600 | | | | | | | | | | |
| 07 | WMZ11A-50S681NU | 680±30% | 600 | | | | | | | | | | |
| 08 | WMZ11A-50S102NU | 1000±30% | 600 | | | | | | | | | | |
| 09 | WMZ11A-50S152NU | 1500±30% | 600 | 140 | 210 | | | | | | | | |
| 10 | WMZ11A-50S222NU | 2200±30% | 600 | 90 | 135 | | | | | | | | |
| 11 | WMZ11A-50S332NU | 3300±30% | 600 | 60 | 90 | | | | | | | | |
| 12 | WMZ11A-50S472NU | 4700±30% | 600 | 40 | 60 | | | | | | | | |
| 13 | WMZ11A-75S68RNU | 68±30% | 360 | 200 | 300 | 75±7 | 4 | 4.5 | 0.5 | | | | |
| 14 | WMZ11A-75S101NU | 100±30% | 400 | | | | | | | | | | |
| 15 | WMZ11A-75S151NU | 150±30% | 400 | | | | | | | | | | |
| 16 | WMZ11A-75S221NU | 220±30% | 500 | | | | | | | | | | |
| 17 | WMZ11A-75S331NU | 330±30% | 500 | | | | | | | | | | |
| 18 | WMZ11A-75S471NU | 470±30% | 500 | | | | | | | | | | |
| 19 | WMZ11A-75S681NU | 680±30% | 600 | | | | | | | | | | |
| 20 | WMZ11A-75S102NU | 1000±30% | 600 | | | | | | | | | | |
| 21 | WMZ11A-75S152NU | 1500±30% | 600 | 140 | 210 | | | | | | | | |
| 22 | WMZ11A-75S222NU | 2200±30% | 600 | 90 | 135 | | | | | | | | |
| 23 | WMZ11A-75S332NU | 3300±30% | 600 | 60 | 90 | | | | | | | | |
| 24 | WMZ11A-75S472NU | 4700±30% | 600 | 40 | 60 | | | | | | | | |
| 25 | WMZ11A-105S68RNU | 68±30% | 360 | 180 | 270 | 105±7 | 4 | 4.5 | 0.5 | | | | |
| 26 | WMZ11A-105S101NU | 100±30% | 400 | | | | | | | | | | |
| 27 | WMZ11A-105S151NU | 150±30% | 400 | | | | | | | | | | |
| 28 | WMZ11A-105S221NU | 220±30% | 400 | | | | | | | | | | |
| 29 | WMZ11A-105S331NU | 330±30% | 500 | | | | | | | | | | |
| 30 | WMZ11A-105S471NU | 470±30% | 500 | | | | | | | | | | |
| 31 | WMZ11A-105S681NU | 680±30% | 600 | | | | | | | | | | |
| 32 | WMZ11A-105S102NU | 1000±30% | 600 | | | | | | | | | | |
| 33 | WMZ11A-105S152NU | 1500±30% | 600 | 140 | 210 | | | | | | | | |
| 34 | WMZ11A-105S222NU | 2200±30% | 600 | 90 | 135 | | | | | | | | |
| 35 | WMZ11A-120S68RNU | 68±30% | 360 | 180 | 270 | | | | | 120±7 | 4 | 4.5 | 0.5 |
| 36 | WMZ11A-120S101NU | 100±30% | 400 | | | | | | | | | | |



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|----|------------------|----------|-----|--|--|--|--|--|--|
| 37 | WMZ11A-120S151NU | 150±30% | 400 | | | | | | |
| 38 | WMZ11A-120S221NU | 220±30% | 400 | | | | | | |
| 39 | WMZ11A-120S331NU | 330±30% | 500 | | | | | | |
| 40 | WMZ11A-120S471NU | 470±30% | 500 | | | | | | |
| 41 | WMZ11A-120S681NU | 680±30% | 600 | | | | | | |
| 42 | WMZ11A-120S102NU | 1000±30% | 600 | | | | | | |

| 序号 | 型号 | 额定零功率电阻值 (Ω) | 耐电压 (VAC) | 最大可重复通断电流 (mA) | 耐流能力 (mA) | 开关温度 (°C) | 外形尺寸 (mm) | | | | | | | | |
|----|------------------|--------------|-----------|----------------|-----------|-----------|-----------|------|-----|-----|-----|-------|-----|-----|-----|
| | | | | | | | Dmax | Tmax | d | | | | | | |
| 43 | WMZ11A-85L68RNU | 68±30% | 360 | 300 | 450 | 85±7 | 5.5 | 4.5 | 0.6 | | | | | | |
| 44 | WMZ11A-85L101NU | 100±30% | 400 | | | | | | | | | | | | |
| 45 | WMZ11A-85L151NU | 150±30% | 400 | | | | | | | | | | | | |
| 46 | WMZ11A-85L221NU | 220±30% | 400 | | | | | | | | | | | | |
| 47 | WMZ11A-85L331NU | 330±30% | 500 | | | | | | | | | | | | |
| 48 | WMZ11A-85L471NU | 470±30% | 600 | | | | | | | | | | | | |
| 49 | WMZ11A-85L681NU | 680±30% | 600 | | | | | | | | | | | | |
| 50 | WMZ11A-85L102NU | 1000±30% | 600 | | | | | | | 200 | 300 | | | | |
| 51 | WMZ11A-85L152NU | 1500±30% | 600 | 140 | 210 | | | | | | | | | | |
| 52 | WMZ11A-85L222NU | 2200±30% | 600 | 90 | 135 | | | | | | | | | | |
| 53 | WMZ11A-105L68RNU | 68±30% | 360 | 300 | 450 | 105±7 | 5.5 | 4.5 | 0.6 | | | | | | |
| 54 | WMZ11A-105L101NU | 100±30% | 400 | | | | | | | | | | | | |
| 55 | WMZ11A-105L151NU | 150±30% | 400 | | | | | | | | | | | | |
| 56 | WMZ11A-105L221NU | 220±30% | 400 | | | | | | | | | | | | |
| 57 | WMZ11A-105L331NU | 330±30% | 500 | | | | | | | | | | | | |
| 58 | WMZ11A-105L471NU | 470±30% | 600 | | | | | | | | | | | | |
| 59 | WMZ11A-105L681NU | 680±30% | 600 | | | | | | | | | | | | |
| 60 | WMZ11A-120L101NU | 100±30% | 400 | | | | | | | 300 | 450 | 120±7 | 6.5 | 5.0 | 0.6 |
| 61 | WMZ11A-120L151NU | 150±30% | 400 | | | | | | | | | | | | |
| 62 | WMZ11A-120L221NU | 220±30% | 400 | | | | | | | | | | | | |
| 63 | WMZ11A-120L331NU | 330±30% | 500 | | | | | | | | | | | | |
| 64 | WMZ11A-120L471NU | 470±30% | 600 | | | | | | | | | | | | |
| 65 | WMZ11A-120L681NU | 680±30% | 600 | | | | | | | | | | | | |
| 66 | WMZ11A-50A68RNU | 68±30% | 420 | 400 | 600 | 50±7 | 6.5 | 5.0 | 0.6 | | | | | | |
| 67 | WMZ11A-50A101NU | 100±30% | 420 | | | | | | | | | | | | |
| 68 | WMZ11A-50A151NU | 150±30% | 500 | | | | | | | | | | | | |
| 69 | WMZ11A-50A221NU | 220±30% | 500 | | | | | | | | | | | | |
| 70 | WMZ11A-50A331NU | 330±30% | 600 | | | | | | | | | | | | |
| 71 | WMZ11A-50A471NU | 470±30% | 600 | | | | | | | | | | | | |
| 72 | WMZ11A-50A681NU | 680±30% | 600 | | | | | | | 300 | 450 | | | | |
| 73 | WMZ11A-50A102NU | 1000±30% | 600 | | | | | | | 200 | 300 | | | | |



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|----|------------------|----------|-----|-----|-----|-----|-----|-----|
| 74 | WMZ11A-50A152NU | 1500±30% | 600 | 140 | 210 | 6.5 | 5.5 | 0.6 |
| 75 | WMZ11A-50A222NU | 2200±30% | 600 | 90 | 135 | | | |
| 76 | WMZ11A-50A332NU | 3300±30% | 600 | 60 | 90 | | | |
| 77 | WMZ11A-50HV68RNU | 68±30% | 600 | 400 | 600 | | | |
| 78 | WMZ11A-50HV101NU | 100±30% | 600 | | | | | |
| 79 | WMZ11A-50HV151NU | 150±30% | 750 | | | | | |
| 80 | WMZ11A-50HV221NU | 220±30% | 750 | | | | | |
| 81 | WMZ11A-50HV331NU | 330±30% | 800 | | | | | |
| 82 | WMZ11A-50HV471NU | 470±30% | 900 | | | | | |
| 83 | WMZ11A-50HV681NU | 680±30% | 900 | 300 | 450 | | | |
| 84 | WMZ11A-50HV102NU | 1000±30% | 900 | 200 | 300 | | | |
| 85 | WMZ11A-50HV152NU | 1500±30% | 900 | 120 | 210 | | | |

| 序号 | 型号 | 额定零功率 电阻值 (Ω) | 耐电 压 (VAC) | 最大可重复通 断电流 (mA) | 耐流能力 (mA) | 开关温度 (℃) | 外形尺寸 (mm) | | | | | | |
|-----|------------------|------------------|------------------|--------------------|--------------|-------------|-----------|------|-----|-------|-----|-----|-----|
| | | | | | | | Dmax | Tmax | d | | | | |
| 86 | WMZ11A-75A68RNU | 68±30% | 420 | 400 | 600 | 75±7 | 6.5 | 5.0 | 0.6 | | | | |
| 87 | WMZ11A-75A101NU | 100±30% | 420 | | | | | | | | | | |
| 88 | WMZ11A-75A151NU | 150±30% | 500 | | | | | | | | | | |
| 89 | WMZ11A-75A221NU | 220±30% | 500 | | | | | | | | | | |
| 90 | WMZ11A-75A331NU | 330±30% | 600 | | | | | | | | | | |
| 91 | WMZ11A-75A471NU | 470±30% | 600 | | | | | | | | | | |
| 92 | WMZ11A-75A681NU | 680±30% | 700 | 300 | 450 | 75±7 | 6.5 | 5.5 | 0.6 | | | | |
| 93 | WMZ11A-75A102NU | 1000±30% | 700 | 200 | 300 | | | | | | | | |
| 94 | WMZ11A-75A152NU | 1500±30% | 800 | 140 | 210 | | | | | | | | |
| 95 | WMZ11A-75A222NU | 2200±30% | 800 | 90 | 135 | | | | | | | | |
| 96 | WMZ11A-75A332NU | 3300±30% | 800 | 60 | 90 | | | | | | | | |
| 97 | WMZ11A-75HV68RNU | 68±30% | 600 | 400 | 600 | | | | | | | | |
| 98 | WMZ11A-75HV101NU | 100±30% | 600 | | | | | | | | | | |
| 99 | WMZ11A-75HV151NU | 150±30% | 750 | | | | | | | | | | |
| 100 | WMZ11A-75HV221NU | 220±30% | 750 | | | | | | | | | | |
| 101 | WMZ11A-75HV331NU | 330±30% | 800 | | | | | | | | | | |
| 102 | WMZ11A-75HV471NU | 470±30% | 900 | | | | | | | | | | |
| 103 | WMZ11A-75HV681NU | 680±30% | 900 | 300 | 450 | | | | | 105±7 | 6.5 | 5.0 | 0.6 |
| 104 | WMZ11A-75HV102NU | 1000±30% | 900 | 200 | 300 | | | | | | | | |
| 105 | WMZ11A-75HV152NU | 1500±30% | 1000 | 140 | 210 | | | | | | | | |
| 106 | WMZ11A-75HV222NU | 2200±30% | 1000 | 90 | 145 | | | | | | | | |
| 107 | WMZ11A-75HV332NU | 3300±30% | 1000 | 60 | 90 | | | | | | | | |
| 108 | WMZ11A-105A68RNU | 68±30% | 400 | 400 | 600 | | | | | | | | |
| 109 | WMZ11A-105A101NU | 100±30% | 400 | | | | | | | | | | |
| 110 | WMZ11A-105A151NU | 150±30% | 400 | | | | | | | | | | |
| 111 | WMZ11A-105A221NU | 220±30% | 500 | | | | | | | | | | |



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|-----|-------------------|----------|------|-----|------|-------|-----|-----|-----|-----|------|
| 112 | WMZ11A-105A331NU | 330±30% | 600 | | | | | | | | |
| 113 | WMZ11A-105A471NU | 470±30% | 600 | | | | | | | | |
| 114 | WMZ11A-105A681NU | 680±30% | 700 | 300 | 450 | | | | | | |
| 115 | WMZ11A-105A102NU | 1000±30% | 700 | 200 | 300 | | | | | | |
| 116 | WMZ11A-120A68RNU | 68±30% | 400 | 400 | 600 | 120±7 | 6.5 | 5.0 | 0.6 | | |
| 117 | WMZ11A-120A101NU | 100±30% | 400 | | | | | | | | |
| 118 | WMZ11A-120A151NU | 150±30% | 400 | | | | | | | | |
| 119 | WMZ11A-120A221NU | 220±30% | 500 | | | | | | | | |
| 120 | WMZ11A-120A331NU | 330±30% | 500 | | | | | | | | |
| 121 | WMZ11A-120A471NU | 470±30% | 600 | | | | | | | | |
| 122 | WMZ11A-50B68RNU | 68±30% | 400 | | | | | | | 800 | 1200 |
| 123 | WMZ11A-50B101NU | 100±30% | 500 | | | | | | | | |
| 124 | WMZ11A-50B151NU | 150±30% | 500 | | | | | | | | |
| 125 | WMZ11A-50B221NU | 220±30% | 600 | | | | | | | | |
| 126 | WMZ11A-50B331NU | 330±30% | 600 | 620 | 930 | | | | | | |
| 127 | WMZ11A-50B471NU | 470±30% | 600 | 430 | 645 | | | | | | |
| 128 | WMZ11A-50B681NU | 680±30% | 600 | 300 | 450 | | | | | | |
| 129 | WMZ11A-50B102NU | 1000±30% | 600 | 200 | 300 | | | | | | |
| 130 | WMZ11A-75B68RNU | 68±30% | 400 | 800 | 1200 | 75±7 | 8.5 | 5.0 | 0.6 | | |
| 131 | WMZ11A-75B101NU | 100±30% | 500 | | | | | | | | |
| 132 | WMZ11A-75B151NU | 150±30% | 500 | | | | | | | | |
| 133 | WMZ11A-75B221NU | 220±30% | 600 | | | | | | | | |
| 134 | WMZ11A-75B331NU | 330±30% | 600 | | | | | | | 620 | 930 |
| 135 | WMZ11A-75B471NU | 470±30% | 600 | | | | | | | 430 | 645 |
| 136 | WMZ11A-85B68RNU | 68±30% | 400 | | | | | | | 800 | 1200 |
| 137 | WMZ11A-85B101NU | 100±30% | 500 | | | | | | | | |
| 138 | WMZ11A-85B151NU | 150±30% | 500 | | | | | | | | |
| 139 | WMZ11A-85B221NU | 220±30% | 600 | | | | | | | | |
| 140 | WMZ11A-85B331NU | 330±30% | 600 | 620 | 930 | | | | | | |
| 141 | WMZ11A-85B471NU | 470±30% | 600 | 430 | 645 | | | | | | |
| 142 | WMZ11A-105B68RNU | 68±30% | 400 | 800 | 1200 | 105±7 | 8.5 | 5.0 | 0.6 | | |
| 143 | WMZ11A-105B101NU | 100±30% | 500 | | | | | | | | |
| 144 | WMZ11A-105B151NU | 150±30% | 500 | | | | | | | | |
| 145 | WMZ11A-105B221NU | 220±30% | 600 | | | | | | | | |
| 146 | WMZ11A-105B331NU | 330±30% | 600 | | | | | | | 620 | 930 |
| 147 | WMZ11A-105B471NU | 470±30% | 600 | | | | | | | 430 | 645 |
| 148 | WMZ11A-75BHV68RNU | 68±30% | 600 | | | | | | | 800 | 1200 |
| 149 | WMZ11A-75BHV101NU | 100±30% | 600 | | | | | | | | |
| 150 | WMZ11A-75BHV151NU | 150±30% | 750 | | | | | | | | |
| 151 | WMZ11A-75BHV221NU | 220±30% | 900 | | | | | | | | |
| 152 | WMZ11A-75BHV331NU | 330±30% | 1000 | 620 | 930 | | | | | | |
| 153 | WMZ11A-75BHV471NU | 470±30% | 1000 | 430 | 645 | | | | | | |



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| | | | | | | | | | |
|-----|-------------------|----------|------|-----|-----|--|--|--|--|
| 154 | WMZ11A-75BHV681NU | 680±30% | 1000 | 300 | 450 | | | | |
| 155 | WMZ11A-75BHV102NU | 1000±30% | 1000 | 200 | 300 | | | | |
| 156 | WMZ11A-75BHV152NU | 1500±30% | 1000 | 240 | 210 | | | | |
| 157 | WMZ11A-75BHV222NU | 2200±30% | 1000 | 90 | 145 | | | | |

注：当预热时间偏短时,可选阻值较低、居里点温度较高或体积较大的 PTC 热敏电阻,反之亦然。另,我公司还可按用户的特殊要求供货。Remark: If the Preheating lime is too short, PTC thermistor of low resistance, high courier temp. or big bulk should be selected, vice versa. Besides, Peculiar manufacture capable according to the demands of users.