

概述

MZ31系列PTC热敏电阻器应用于各种荧光灯电子镇流器，电子节能灯中，不必改动线路将产品直接跨接在灯管的谐振电容两端，可以改变电子镇流器，电子节能灯的硬启动为预热启动，灯丝的预热时间达0.4-2.0秒，可延长灯管寿命4倍以上。

DESCRIPTION

MZ31 series of PTC Thermistor are applicable to various types of fluorescent lamp, electronic ballast and electronic energy-saving lamp. The PTC can be connected across the lamp resonator without changing the circuits. It can change hard start of the ballast and electronic energy-saving lamp to preheated start and the preheating time of the filament can come up to 0.4-2 seconds, which will extend the service life of the fluorescent tube by over 4 times.

应用原理

应用PTC热敏电阻实现预热启动如图2所示：刚接通开关时，Rt处于常温态，其阻值远远低于C2阻值，电流通过C1，Rt形成回路预热灯丝。约0.4-2秒后，Rt焦耳热温度超过开关温度Tc跃入高阻态，其阻值远远高于C2阻抗，电流通过C1、C2形成回路导致L谐振，产生高压点亮灯管。

对某一特定的电子镇流器、电子节能灯而言，所选用的PTC阻值越大、体积越小、开关温度越低，其功耗就越小、预热时间亦越短；反之功耗就越大，预热时间亦越长。

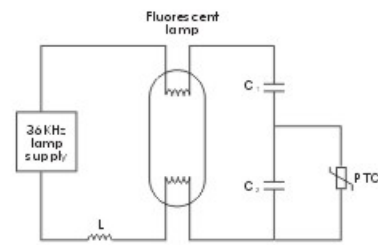
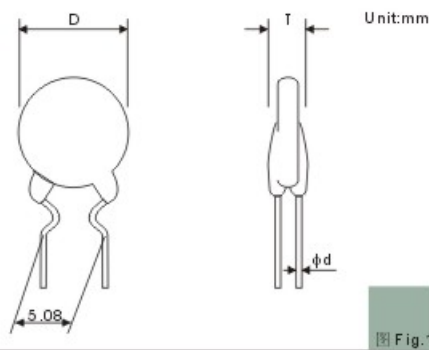
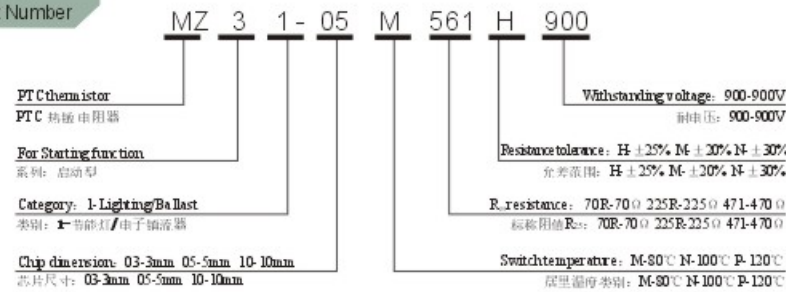
OPERATING PRINCIPLE

The application of the PTC thermistor to achieve preheated start is as follows: Immediately after power is switched on, Rt is in normal temperature state and its resistance is far lower than the C2 resistance. The current through C1 and Rt forms a return circuit to preheat the filament. After about 0.4-2 seconds, Rt joule heat temperature exceeds Curie point Tc and skips into high resistance state of far higher than C2 resistance. The current passes through C1 and C2 to form a return circuit, which causes L resonance and produces high voltage to light the fluorescent tube.

To a certain electronic ballast, energy saving lights, higher PTC thermistor resistance, smaller PTC ceramic body dimension, lower switch temperature, will lead to its lower power consumption, shorter preheating time, conversely, larger power consumption, longer preheating time.

产品型号说明

Marking of Part Number



Examples of applications
应用实例



规格表
SPEC. Table

Part Number 型号	Switch Temperature 居里温度 T _c (°C)	Resistance @ 25 °C 额定电阻值 R ₂₅ (Ω)	With standing Voltage 耐电压 V _c (V)	Max Current 最大电流 I _{max} (mA)	Dimensions 外形尺寸(mm)		
					D _{max}	T _{max}	φd
MZ31-03M151N500	30(M)	150 ±30%	500	200	-	-	-
MZ31-03M271N650		270 ±30%	650	200	-	-	-
MZ31-03M391N650		390 ±30%	650	200	-	-	-
MZ31-03M681N800		680 ±30%	800	200	-	-	-
MZ31-03M1000N800		1000 ±30%	800	100	4.5	5.0	0.5
MZ31-03M1500N800		1500 ±30%	800	100	-	-	-
MZ31-03M2200N800		2200 ±30%	800	100	-	-	-
MZ31-03M3300N800		3300 ±30%	800	100	-	-	-
MZ31-03M4700N800		4700 ±30%	800	100	-	-	-
MZ31-04M101N500		100 ±30%	500	300	-	-	-
MZ31-04M1500N500	150 ±30%	500	300	-	-	-	
MZ31-04M2200N650	220 ±30%	650	300	-	-	-	
MZ31-04M3900N800	390 ±30%	800	300	-	-	-	
MZ31-04M5600N800	560 ±30%	800	200	-	-	-	
MZ31-04M6800N900	680 ±30%	900	200	5.5	5.0	0.6	
MZ31-04M1000N900	1000 ±30%	900	100	-	-	-	
MZ31-04M1500N900	1500 ±30%	900	100	-	-	-	
MZ31-04M2200N900	2200 ±30%	900	100	-	-	-	
MZ31-04M3300N900	3300 ±30%	900	100	-	-	-	
MZ31-05M101N650	100 ±30%	650	400	-	-	-	
MZ31-05M1500N650	150 ±30%	650	400	-	-	-	
MZ31-05M2700N800	270 ±30%	800	400	-	-	-	
MZ31-05M3900N900	390 ±30%	900	400	6.5	5.0	0.6	
MZ31-05M5600N900	560 ±30%	900	300	-	-	-	
MZ31-05M1000N900	1000 ±30%	900	100	-	-	-	
MZ31-05M1500N900	1500 ±30%	900	100	-	-	-	
MZ31-05M2200N900	2200 ±30%	900	100	-	-	-	
MZ31-07M70R-70N650	70 ±30%	650	600	-	-	-	
MZ31-07M101N650	100 ±30%	650	600	-	-	-	
MZ31-07M1500N800	150 ±30%	800	600	-	-	-	
MZ31-07M2200N800	220 ±30%	800	600	-	-	-	
MZ31-07M2700N900	270 ±30%	900	600	-	-	-	
MZ31-07M3900N900	390 ±30%	900	400	8.0	5.0	0.6	
MZ31-07M5600N900	560 ±30%	900	300	-	-	-	
MZ31-07M6800N900	680 ±30%	900	200	-	-	-	
MZ31-07M1000N900	1000 ±30%	900	100	-	-	-	
MZ31-03N151N420	150 ±30%	420	200	-	-	-	
MZ31-03N175RN500	175 ±30%	500	200	-	-	-	
MZ31-03N225RN500	225 ±30%	500	200	-	-	-	
MZ31-03N390N650	390 ±30%	650	200	-	-	-	
MZ31-03N560N650	560 ±30%	650	200	4.5	5.0	0.5	
MZ31-03N680N650	680 ±30%	650	200	-	-	-	
MZ31-03N1000N800	1000 ±30%	800	100	-	-	-	
MZ31-03N1500N800	1500 ±30%	800	100	-	-	-	
MZ31-04N101N420	100 ±30%	420	300	-	-	-	
MZ31-04N1500N500	150 ±30%	500	300	-	-	-	
MZ31-04N175RN500	175 ±30%	500	300	-	-	-	
MZ31-04N225RN500	225 ±30%	500	300	-	-	-	
MZ31-04N300N650	300 ±30%	650	300	5.5	5.0	0.6	
MZ31-04N390N650	390 ±30%	650	300	-	-	-	
MZ31-04N600N800	600 ±30%	800	200	-	-	-	
MZ31-04N850N800	850 ±30%	800	100	-	-	-	
MZ31-05N101N500	100 ±30%	500	400	-	-	-	
MZ31-05N1500N650	150 ±30%	650	400	-	-	-	
MZ31-05N2200N650	220 ±30%	650	400	-	-	-	
MZ31-05N300N650	300 ±30%	650	400	-	-	-	
MZ31-05N390N800	390 ±30%	800	400	6.5	5.0	0.6	
MZ31-05N560N800	560 ±30%	800	300	-	-	-	
MZ31-05N680N900	680 ±30%	900	200	-	-	-	
MZ31-05N850N900	850 ±30%	900	100	-	-	-	
MZ31-05N1000N900	1000 ±30%	900	100	-	-	-	
MZ31-07N70RN650	70 ±30%	650	600	-	-	-	
MZ31-07N101N650	100 ±30%	650	600	-	-	-	
MZ31-07N1500N800	150 ±30%	800	600	-	-	-	
MZ31-07N2200N800	220 ±30%	800	600	-	-	-	
MZ31-07N2700N800	270 ±30%	800	600	8.0	5.0	0.6	
MZ31-07N3300N800	330 ±30%	800	400	-	-	-	
MZ31-07N390N900	390 ±30%	900	400	-	-	-	
MZ31-07N560N900	560 ±30%	900	300	-	-	-	

MZ31
系列 SERIES

PTC 热敏电阻器
PTC Thermistor