

**MZ31 Series for time delay start for lighting**

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 3 times.

The application of the PTC thermistor to achieve preheated start is as follows: Immediately after power is switched on, R_t is in normal temperature state and its resistance is far lower than the C_2 resistance. The current through C_1 and R_t forms a return circuit to preheat the filament. After about 0.4-2 seconds, R_t joule heat temperature exceeds Curie point T_{sw} and skips into high resistance state of far higher than C_2 resistance. The current passes through C_1 and C_2 to form a return circuit, which causes L resonance and produces high voltage to light the fluorescent tube

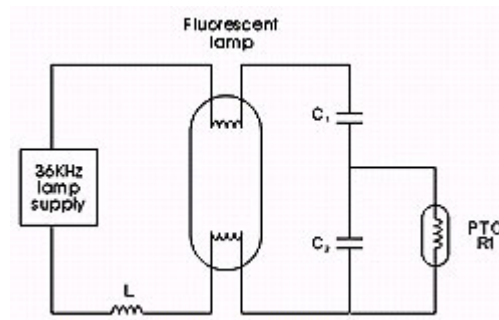


Fig.1 Examples of applications

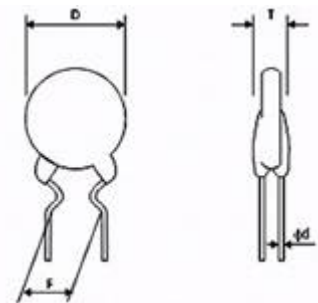
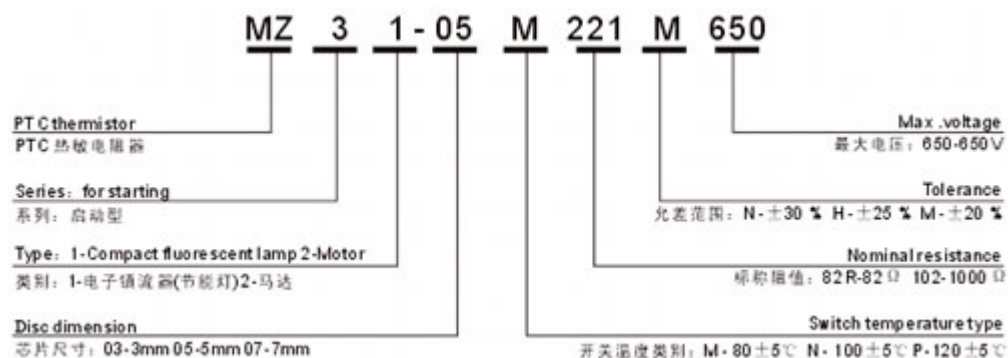


Fig.2 Component outline

MARKING OF PARTNUMBER :



SPEC.TABLE

Part Number	Switch Temp.(℃)	Resistance at+25℃(Ω)	Max. Voltage(V _{AC})
MZ31-03M101N500	80±5	100±30%	500
MZ31-03M151N500		150±30%	500
MZ31-03M271N650		270±30%	650
MZ31-03M391N650		390±30%	650
MZ31-03M681N800		680±30%	800
MZ31-03M102N800		1000±30%	800
MZ31-03M152N900		1500±30%	900
MZ31-03M332N900		3300±30%	900
MZ31-05M82RN650	80±5	82±30%	500
MZ31-05M101N650		100±30%	650
MZ31-05M151N650		150±30%	650
MZ31-05M271N800		270±30%	800
MZ31-05M391N800		390±30%	800
MZ31-05M561N900		560±30%	800
MZ31-05M102N900		1000±30%	900
MZ31-05M222N900		2200±30%	900
MZ31-07M68RN650	80±5	68±30%	500
MZ31-07M82RN650		82±30%	650
MZ31-07M101N650		100±30%	650
MZ31-07M151N650		150±30%	650
MZ31-07M221N800		220±30%	800
MZ31-07M271N800		270±30%	800
MZ31-07M391N800		390±30%	800
MZ31-07M681N900		680±30%	900

SPEC.TABLE

Part Number	Switch Temp.(°C)	Resistance at+25°C(Ω)	Max. Voltage(V _{AC})
MZ31-03P101N420	120±5	100±30%	420
MZ31-03P151N420		150±30%	420
MZ31-03P271N500		270±30%	500
MZ31-03P391N500		390±30%	500
MZ31-03P561N650		560±30%	650
MZ31-03P821N650		820±30%	650
MZ31-03P102N650		1000±30%	650
MZ31-03P152N650		1500±30%	650
MZ31-05P70RN500	120±5	70±30%	500
MZ31-05P101N500		100±30%	500
MZ31-05P221N650		220±30%	650
MZ31-05P391N650		390±30%	650
MZ31-05P561N800		560±30%	800
MZ31-05P681N800		680±30%	800
MZ31-05P821N800		820±30%	800
MZ31-05P102N800		1000±30%	800
MZ31-07N68RN500	100±5	68±30%	500
MZ31-07N82RN650		82±30%	650
MZ31-07N101N650		100±30%	650
MZ31-07N151N650		150±30%	650
MZ31-07N221N800		220±30%	800
MZ31-07N271N800		270±30%	800
MZ31-07N391N800		390±30%	800
MZ31-07N681N900		680±30%	900