

PTC Thermistor Series

KLS6-MZ12A PTC Thermistor Series

1. Application

MZ12A thermistor is mainly applied in abnormal current and thermal protection of electronic ballast (energy-saving lamp, electronic transformer, multimeter, intellectualized ammeter etc.). It can be in series of the load circuitry right and clamp the excessive current or interdict the current automatically in exceptional conditions, and come back the primary state automatically after the trouble eliminating. It is called ten-thousand time fuse.



2. Characteristics

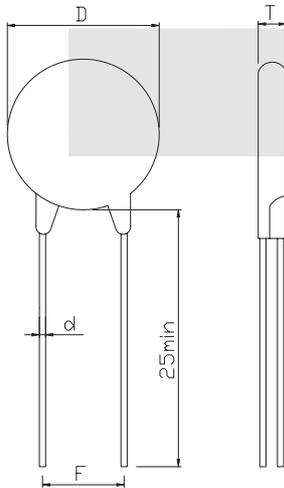
- No-touch-point circuit and elements protection
- Clamping the excessive current automatically
- Coming back auto. after trouble eliminating
- No noise or sparkle in operating
- Security working, operating easliy

3. Principal

MZ12A thermistor in series of the power supply loop, the current passing through PTC will be less than the rated current, PTC will be normal, its resistance will be very little and the normal work of protected circuitries of electronic ballast (energy-saving lamp, transformer, multimeter etc.) will not be influenced when circuitry is in normal state. And PTC will heat suddenly, its resistance will rise up to the high-resistance state suddenly accordingly so as to clamp or interdict the current automatically to protect the circuitry from damage when the current is far over the rated value. After the current come back the normal state, PTC will also come back low-resistance state automatically and the circuitry will work normally again.

In the field of Surge current protection of electronic ballast (energy-saving lamp, transformer, multimeter etc.).

4. Dimension (Unit: mm)



ORDER INFORMATION

KLS6-MZ12A - 75 - LL -XXX M XXX		
Part Number		Max.non-operating current : 060-60mA 300-300mA
MZ12A over I / t protection of PTC thermistor series		R.precision: N-± 30% M-± 20% K-± 10% J-± 5%
Sorts of switch temp : 75-75°C 105-105°C 120-120°C		Rated R: 82R=82Ω 4R7=4.7Ω 151=150Ω
Chip Diameter: S=Φ3mm A=Φ5mm B=Φ7mm LB=Φ8mm M=Φ10mm SL=Φ13mm LL=Φ19mm		

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Main Techno-Parameter

MZ12A (I) for over current / over heat protection

No.	Max. Non-operating Cur. In (mA)	Trip Cur. It (mA)	Rated Zero-power Resistance R25 (Ω)	Max. w. Cur. I _{max} (A)	Dimensions (mm)			
					D _{max}	T _{max}	D±0.05	F±1
MZ12A-75S222M005	5	10	2200±20%	0.2	4	4.5	0.5	5
MZ12A-75S152M006	6	12	1500±20%					
MZ12A-75S102M008	8	16	1000±20%					
MZ12A-75S681M010	10	20	680±20%					
MZ12A-75S471M012	12	24	470±20%	0.3	4	4.5	0.5	5
MZ12A-75S331M015	15	30	330±20%					
MZ12A-75S221M018	18	36	220±20%					
MZ12A-75S151M020	20	40	150±20%	0.4	4	4.5	0.5	5
MZ12A-75S101M025	25	50	100±20%					
MZ12A-75A471M014	14	28	470±20%	0.4	6.5	4.5	0.6	5
MZ12A-75A331M017	17	34	330±20%					
MZ12A-75A221M020	20	40	220±20%	0.5	6.5	4.5	0.6	5
MZ12A-75A151M024	24	48	150±20%	0.6				
MZ12A-75A101M028	28	56	100±20%					
MZ12A-75A68RM032	32	64	680±20%	0.8	8	4.5	0.6	5
MZ12A-75B331M020	20	40	330±20%					
MZ12A-75B221M025	25	50	220±20%					
MZ12A-75B151M030	30	60	150±20%					
MZ12A-75B101M035	35	70	100±20%	1	9	4.5	0.6	5
MZ12A-75B68RM040	40	80	68±20%					
MZ12A-75LB82RM035	35	70	82±20%	1.2	9	4.5	0.6	5
MZ12A-75LB68RM040	40	80	68±20%					
MZ12A-75LB47RM045	45	90	47±20%					
MZ12A-75LB33RM050	50	100	33±20%					
MZ12A-75LB22RM060	60	120	22±20%	1.5	9	4.5	0.6	5
MZ12A-75LB15RM070	70	140	15±20%					
MZ12A-75LB10RM080	80	160	10±20%					
MZ12A-85B151M35	35	70	150±20%	0.8	8	4.5	0.6	5
MZ12A-85B121M040	40	80	120±20%					
MZ12A-85B101M045	45	90	100±20%	0.9	8	4.5	0.6	5
MZ12A-85B82M050	50	100	82±20%					
MZ12A-85B68M055	55	110	68±20%					
MZ12A-85LB68RM060	60	120	68±20%	1.2	9	4.5	0.6	5
MZ12A-85LB47RM065	65	130	47±20%					
MZ12A-85LB39RM070	70	140	39±20%					
MZ12A-85LB33RM075	75	150	33±20%					
MZ12A-85LB25RM080	80	160	25±20%	1.5	9	4.5	0.6	5
MZ12A-85LB22RM085	85	170	22±20%					
MZ12A-85LB18RM090	90	180	18±20%					
MZ12A-85LB15RM098	98	196	15±20%					
MZ12A-85LB12RM105	105	210	12±20%					
MZ12A-85LB10RM115	115	230	10±20%					



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					D _{max}	T _{max}	D±0.05	F±1
MZ12A-105S221M020	20	40	220±20%	0.2	4	4.5	0.5	5
MZ12A-105S151M025	25	50	150±20%					
MZ12A-105S101M030	30	60	100±20%					
MZ12A-105B151M045	45	90	150±20%	0.8	8	4.5	0.6	5
MZ12A-105B121M050	50	100	120±20%					
MZ12A-105B101M055	55	110	100±20%					
MZ12A-105B82RM060	60	120	82±20%	0.9	8	4.5	0.6	5
MZ12A-105B68RM065	65	130	68±20%					
MZ12A-105B56RM070	70	140	56±20%					
MZ12A-105LB33RM100	100	200	33±20%	1.2	9	4.5	0.6	5
MZ12A-105LB22RM170	110	220	22±20%					
MZ12A-105LB15RM120	120	240	15±20%					
MZ12A-105LB22RM120	120	240	22±20%	1.5	11.5	4.5	0.6	5
MZ12A-105M15RM130	130	260	15±20%					
MZ12A-105M10RM140	140	280	10±20%					
MZ12A-105M8R2M150	150	300	8.2±20%	1.8	14.5	5	0.8	7.5
MA12Z-105SL18RM150	150	300	18±20%	1.8				
MZ12A-105SL15RM-160	160	320	15±20%	2				
MZ12A-105SL12RM170	170	340	12±20%	2	14.5	5	0.8	7.5
MZ12A-105SL10RM180	180	360	10±20%	2.2				
MZ12A-105SL8R2M190	190	380	8.2±20%	2.5				
MZ12A-105SL6R8M200	200	400	6.8±20%	2.5	11.5	5	0.6	5
MZ12A-120M47RN090	90	180	47±20%	1.2				
MZ12A-120M39RM100	100	200	39±20%	1.5				
MZ12A-120M33RM110	110	220	33±20%	1.5	11.5	5	0.6	5
MZ12A-120M22RM130	130	260	22±20%	1.8				
MZ12A-120M15RM150	150	300	15±20%	1.8				
MZ12A-120M10RM170	170	340	10±20%	1.8	14.5	5	0.6	5
MZ12A-120SL15RM200	200	400	15±20%	1.8				
MZ12A-120SL12RM220	220	440	12±20%	2				
MZ12A-120SL10RM240	240	480	10±20%	2	14.5	5	0.6	5
MZ12A-120SL8R2M270	270	540	8.2±20%	2.4				
MZ12A-120SL6R8M300	300	600	6.8±20%	2.4				
MZ12A-120LL12RM300	300	600	12±20%	3.5	21	5	0.8	7.5
MZ12A-120LL10RM330	330	660	10±20%					
MZ12A-120LL8R2M360	360	720	8.2±20%					
MZ12A-120LL6R8M400	400	800	6.8±20%	4	21	5	0.8	7.5
MZ12A-120LL4R7M450	450	900	4.7±20%	4.5				
MZ12A-120LL3R3M500	500	1000	3.3±20%	4.5				
MZ12A-120LL2R2M550	550	1100	2.2±20%	5	21	5	0.8	7.5
MZ12A-120LL1R5M600	600	1200	1.5±20%					



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Main Techno-Parameter

MZ12A (II) for Over-current Protection of Telcom

No.	Part No.	Rated Zero-power Resistance (Ω)	Max. Non-Operating Current (40°C±2°C) (mA)	Max. Operating Times (S)				Dimensions (mm)			
				3A	1A	0.5A	0.2A	D	T	F	d
				↓	↓	↓	↓				
1	MZ12A-12RM090	12±20%	90	0.3	1.2	20	50	9	4.5	5	0.6
2	MZ12A-15RM070	15±20%	70	0.2	1	12	20	9	4.5	5	0.6
3	MZ12A-18RM110	18±20%	110	0.2	1.4	15	30	8	2.5	5	0.6
4	MZ12A-20RM070	20±20%	70	0.2	1	12	20	9	4.5	5	0.6
5	MZ12A-35RM060	35±20%	60	0.2	0.8	4	15	9	4.5	5	0.6
6	MZ12A-50RM060	50±20%	50	0.1	0.8	3	15	11	4.5	5	0.6
7	MZ12A-55RM060	55±20%	60	0.1	0.5	2	15	11	4.5	5	0.6
8	MZ12A-101M050	100±20%	50	0.1	0.5	2	8	9	4.5	5	0.6

Other specifications:

Over-current withstanding: 3Arms 220Vrms 20times

Lightning surges: 10/310μs 1.5KV37.5A 10times

10/1000μs 1.0KV25A 30times

Over-voltage withstanding: 250Vrms 3Arms 15min

Restore time: ≤ 60S

Induced voltage withstanding: 650Vrms 1.1Arms 20times

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Main Techno-Parameter

MZ12A (III) is mainly used for overcurrent / overheat protection

No	Part No.	Max. Non-Operating Current (mA)	Trip current (mA)	Rated Zero-power Resistance (Ω)	Max. W. C. I max (mA)	Dimensions (mm)			
						Dmax	Tmax	d \pm 0.05	F \pm 1
Max. W. V. 60V _{AC}									
1	MZ12A-3R5N010	100	200	3.5 \pm 30%	40	7.4	4.5	0.5	5
2	MZ12A-2R4M020	200	400	2.4 \pm 20%		7.4	4.5	0.5	5
3	MZ12A-1R1M030	300	600	1.1 \pm 20%		7.4	4.5	0.5	5
4	MZ12A-R63M050	500	1000	0.63 \pm 20%		7.9	4.5	0.5	5
5	MZ12A-R33M075	750	1500	0.33 \pm 20%		9.4	4.5	0.5	5
6	MZ12A-R20M110	1100	2200	0.20 \pm 20%		12.8	4.5	0.8	5
7	MZ12A-R15M135	1350	1700	0.15 \pm 20%		15.7	4.5	0.8	5
8	MZ12A-R10M185	1850	3700	0.10 \pm 20%		17.5	4.5	0.8	5
9	MZ12A-R06M250	2500	5000	0.06 \pm 20%		20.8	4.5	0.8	10
10	MZ12A-R04M375	3750	7500	0.04		27.2	4.5	0.8	10
:Max. W. V. :Wmax=30V _{AC}									
11	MZ12A-R18M090	900	1800	0.18 \pm 20%	40	7.4	4.5	0.5	5
12	MZ12A-R10A135	1350	1500	0.10 \pm 20%		8.9	4.5	0.5	5
13	MZ12A-R08A185	1850	2700	0.08 \pm 20%		10.2	4.5	0.5	5
14	MZ12A-R06M250	2500	5000	0.06 \pm 20%		11.4	4.5	0.5	5
15	MZ12A-R05M400	4000	8000	0.05 \pm 20%		14	4.5	0.8	5
16	MZ12A-R03N600	6000	12000	0.03 \pm 20%		16.5	4.5	0.8	10
17	MZ12A-R02N800	8000	16000	0.02 \pm 20%		21.6	4.5	0.8	10