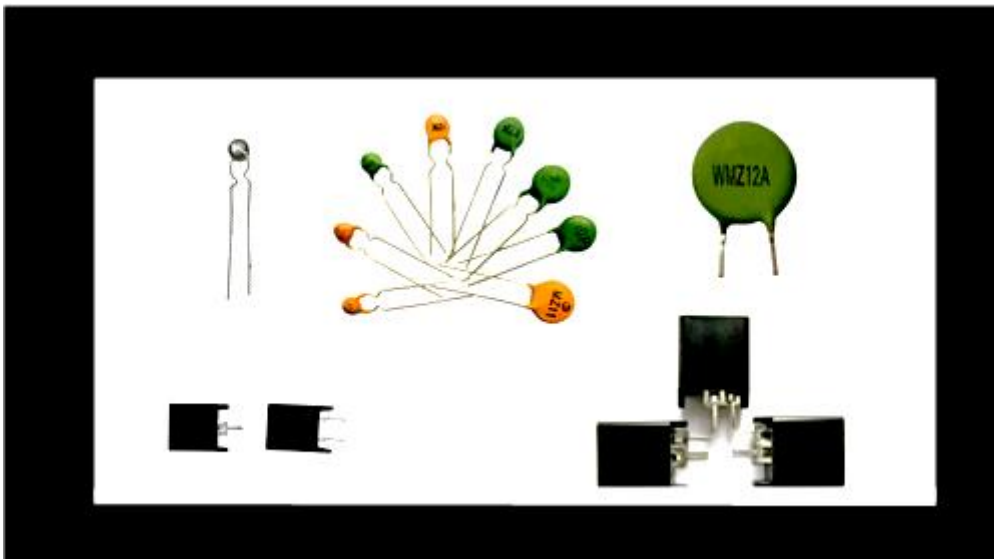


PTC thermistor for protection



- For surge current suppression
- For overcurrent protection

Category PTC thermistor for protection

PTC thermistor for inrush current suppression

Applications

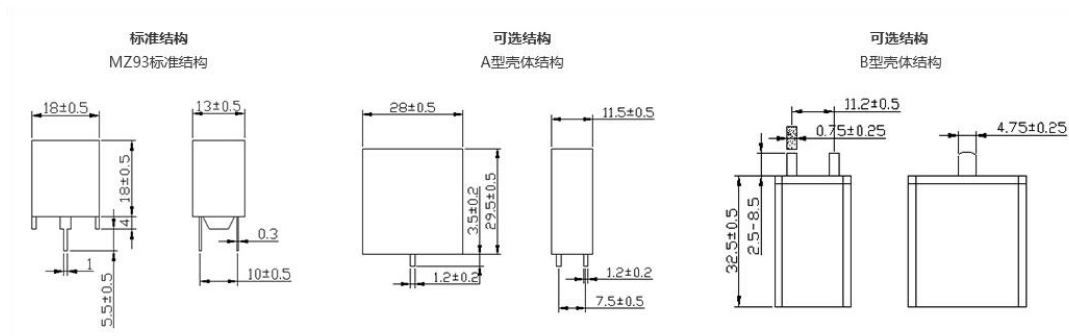
PTC is a resistor that suppresses surge/inrush current and can provide overcurrent protection when the circuit is abnormal. It is widely used in:

- ◆ Switching power supply
- ◆ Car charging
- ◆ Variable frequency power supply used in air conditioners
- ◆ Power inverter
- ◆ Fluorescent lamp power supply
- ◆ Servo motor control

Features

- ◆ Overload protection, no overheating risk
- ◆ Encapsulated thermistor structure, high reliability
- ◆ Able to cope with multiple cycle shocks of high pulse current and power
- ◆ Space saving, automatic reset
- ◆ Able to cope with DC voltage up to 1000V

Shell type Structure and size



Model and parameters

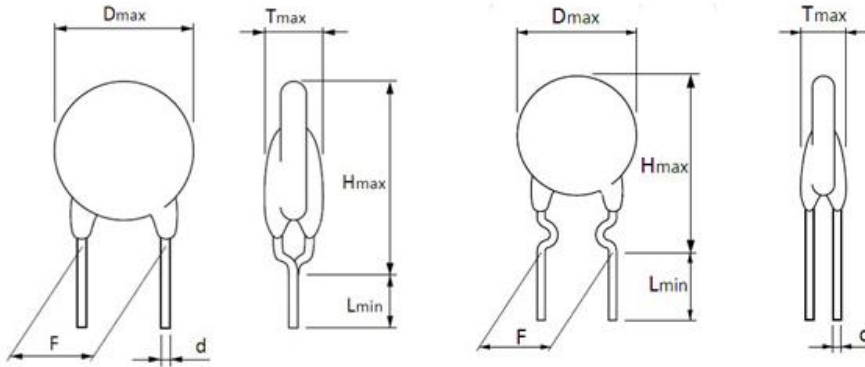
Product Model	Max voltage Vmax(VAC)	Maximum DC link voltageVLmax(VDC)	25°C zero power resistance R25(Ω)	Curie temperature TC (°C)	Heat capacity Cth(J/K)	Time constant τth(s)
MZ93-22R□	280	400	22	135	2.3	150
MZ93-33R□	280	400	33	135	2.3	150
MZ93-56R□	440	620	56	135	2.3	150
MZ93-101R□	560	800	100	135	2.3	150
MZ93-501R□	780	1100	500	140	2.3	150

Notes:

- represents the deviation range of R25 M: ±20% X: ±25% N: ±30% S: Special
- If you choose A or B shell structure, please refer to the specification parameters of [MZ92D](#) model series
- Other specifications or parameters can be customized

Welding lead type

•Structure and size



Models and parameters

Product Model	Max voltage Vmax (VAC)	Max DC link voltage VLmax (VDC)	25°C zero power resistance R25(Ω)	Curie temperature TC (°C)	Heat capacity Cth(J/K)	Time constant τth (s)	Size(mm)		
							D	H	T
MZ2X209-700□B6#	260	370	70	120	0.4	70	9.0	13.5	7.5
MZ2X209-121□B6#	260	370	120	120	0.6	80	9.0	13.5	7.5
MZ2X209-151□B6#	260	370	150	120	0.6	80	9.0	13.5	7.5
MZ2X212-250□B8#	280	400	25	120	1	100	12.5	16.5	5
MZ2X213-500□B8#	280	400	50	120	1.4	120	13.0	18.0	7.5
MZ2X213-800□B8#	280	400	80	120	1.4	120	13.0	18.0	7.5
MZ2X413-600□C5#	350	500	60	140	1.45	105	13.5	17	7
MZ2X315-560□D4#	440	620	56	130	2.1	100	15.0	19.0	7.5
MZ2X213-121□D4#	440	620	120	120	1.4	120	13.0	18.0	7.5
MZ2X417-600□D4#	440	625	60	140	2.3	120	17	21	7.5
MZ2X413-121□D4#	440	625	120	140	1.45	105	13.5	17	7
MZ2X213-151□D4#	440	620	150	120	1.4	120	13.0	18.0	7.5
MZ2X209-501□D4#	440	620	500	120	0.6	80	9.0	13.5	7.5
MZ2X109-103□D4#	440	620	1100	115	0.6	80	9.0	13.5	7.5
MZ2X417-121□D6#	460	650	120	140	2.3	120	17	21	7.5
MZ2X315-120□D8#	480	680	120	130	2.1	100	15.0	19.0	7.5
MZ2X413-251□D8#	480	680	250	140	1.45	105	13.5	17	7

MZ2X113-501□E6#	560	800	500	115	1.4	120	13.0	18.0	7.5
MZ2X413-501□E6#	560	800	500	140	1.45	105	13.5	17	7
MZ2X417-251□F0#	600	850	250	140	2.3	120	17	21	7.5
MZ2X413-102□F0#	600	850	1000	140	1.45	105	13.5	17	7
MZ2X417-501□G0#	700	1000	500	140	2.3	120	17	21	7.5

Notes:

1.□ represents the R25 deviation range M: $\pm 20\%$ X: $\pm 25\%$ N: $\pm 30\%$ S: Special

2.# represents the internal control code

3. The optional dimensions of the foot pitch F value are 5mm, 7.5mm, 10mm

4. The optional dimensions of the foot length L value are 3mm, 20mm, 25mm, 35mm

5. The optional dimensions of the wire diameter d value are 0.6mm, 0.8mm, 1.0mm.

6. Other specifications or parameters can be customized

Jongguan Linkun Electronic Technology Co., Ltd

PTC thermistor for overcurrent protection

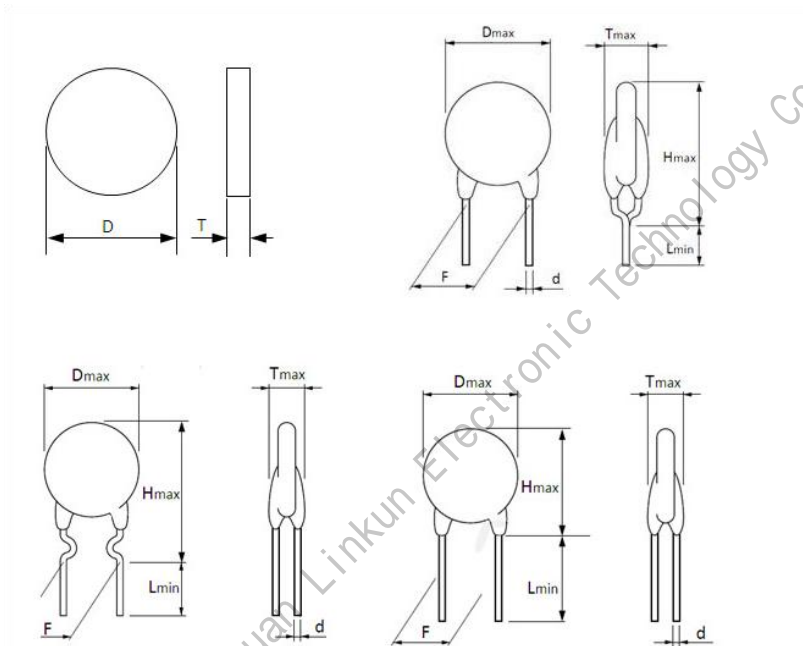
Applications

Used for overcurrent, overvoltage and overtemperature protection in industrial electronics, consumer electronics and electronic data processing systems

Features

- ◆ Rapid protection with short response time
- ◆ Before removing the overload, the PTC keeps the circuit in a protected state; after the overload is eliminated, the PTC automatically returns to its original state
- ◆ Will not cause false operation, suitable for the protection of power supply circuits and motor drive circuits
- ◆ Strong resistance to mechanical vibration and impact
- ◆ High thermal stability

Structure and size



Model and parameters

Chip series

Product Model	Non-operating current	Action current	Max voltage	Maximum current	25°C zero power resistance	Curie temperature	Size (mm)	
	I _N (mA)	I _T (mA)	V _{max} (V)	I _{max} (A)	R ₂₅ (Ω)	T _c (°C)	D	T
MZ2DX2S0720-100□#	80	230	60	2	10	120	7.7	2
MZ2DX0S0720-200□#	90	280	60	3	20	100	7.7	2
MZ2DX3S0825-500□#	50	130	230	1.2	50	130	5	2.5
MZ2DX2S0825-650□#	55	110	230	1	65	120	8	2.5
MZ2DX3S0825-650□#	55	130	230	2	65	130	8	2.5
MZ2DX3S0825-350□#	80	180	230	1	35	130	6	2.5
MZ2DX3S0825-250□#	125	250	230	1	25	130	8	2.5

Lead encapsulated type, maximum voltage 30-32V

Product Model	Non-operating current	Action current	Max voltage	Maximum current	25°C zero power resistance	Curie temperature	Size (mm)		
	I _N (mA)	I _T (mA)	V _{max} (V)	I _{max} (A)	R ₂₅ (Ω)	T _c (°C)	D	H	T
MZ2LP8S07-470□#	55	115	32	1.5	47	80	7.5	11.0	4.0
MZ2LP8S07-330□#	60	135	32	1.5	33	80	7.5	11.0	4.0
MZ2LP8S07-220□#	75	160	32	1.5	22	80	7.5	11.0	4.0
MZ2LP8S07-150□#	100	195	32	1.5	15	80	7.5	11.0	4.0
MZ2LX2S04-130□#	120	240	30	0.7	13	120	4.0	7.5	3.5
MZ2LP8S07-5R0□#	160	320	30	1	5	80	7.5	11.0	5.0
MZ2LX2S07-4R6□#	250	500	30	1	4.6	120	6.8	10.0	3.5
MZ2LX4S05-6R0□#	270	405	30	2.5	6	140	5.0	10.0	4.0
MZ2LX4S07-5R0□#	320	480	30	3.5	5	140	7.0	12.0	4.0
MZ2LX2S09-1R8□#	450	900	30	3	1.8	120	9.0	12.5	3.5
MZ2LX4S08-1R9□#	540	810	30	6	1.9	140	8.5	13.5	4.0
MZ2LX4S10-1R7□#	610	915	30	7	1.7	140	10.5	15.5	4.0
MZ2LX4S10-1R3□#	700	1050	30	8	1.3	140	10.5	15.5	4.0
MZ2LX2S13-0R8□#	850	1700	30	5.5	0.8	120	13.5	17.0	3.5
MZ2LX4S12-0R9□#	920	1380	30	11	0.9	140	12.5	17.5	4.0
MZ2LX4S16-0R7□#	1170	1755	30	13.5	0.7	140	16.5	21.5	4.0
MZ2LX2S17-0R45□#	1300	2600	30	8	0.45	120	17.5	21.0	3.5

MZ2LX4S16-0R5□#	1390	2085	30	16	0.5	140	16.5	21.5	4.0
MZ2LX2S22-0R3□#	1800	3600	30	10	0.3	120	22.0	25.5	3.5
MZ2LX4S20-0R3□#	2050	3075	30	23	0.3	140	20.5	25.5	4.0

Lead encapsulated type, maximum voltage 80V

Product Model	Non-operating current	Action current	Max voltage	Max current	25°C zero power resistance	Curie temperature	Size (mm)		
	I _N (mA)	I _T (mA)	(V)	(A)	R ₂₅ (Ω)	T _c (°C)	D	H	T
MZ2LP8S04-550□#	30	60	80	0.7	55	80	4.0	7.5	3.5
MZ2LX2S04-550□#	50	100	80	0.7	55	120	4.0	7.5	3.5
MZ2LP8S07-250□#	50	110	80	1	25	80	6.5	10.0	3.5
MZ2LX2S05-550□#	62	115	80	0.7	55	120	5.5	8.5	4.5
MZ2LX3S04-620□#	85	130	80	0.7	62	130	4.0	7.5	3.5
MZ2LX2S06-250□#	85	170	80	1	25	120	6.5	10.0	3.5
MZ2LP8S09-9R4□#	90	180	80	3	9.4	80	9.0	12.5	3.5
MZ2LP8S11-5R6□#	130	260	80	4.3	5.6	80	11.0	14.5	3.5
MZ2LX3S06-200□#	150	240	80	1	20	130	6.5	10.0	3.5
MZ2LX2S09-9R4□#	150	300	80	3	9.4	120	9.0	12.5	3.5
MZ2LP8S13-3R7□#	170	350	80	5.5	3.7	80	13.5	17.0	3.5
MZ2LX3S09-8R0□#	250	380	80	3	8	130	9.0	12.5	3.5
MZ2LX2S11-5R6□#	250	500	80	4.3	5.6	120	11.0	14.5	3.5
MZ2LX3S11-4R9□#	320	500	80	4.3	4.9	130	11.0	14.5	3.5
MZ2LX2S13-3R7□#	320	640	80	5.5	3.7	120	13.5	17.0	3.5
MZ2LX2S17-2R3□#	450	900	80	8	2.3	120	17.5	21.0	3.5
MZ2LX3S17-2R2□#	700	1100	80	8	2.2	130	17.5	21.0	3.5
MZ2LX2S22-1R65□#	700	1400	80	10	1.65	120	22.0	25.5	3.5
MZ2LX3S22-1R2□#	1000	1500	80	10	1.2	130	22.0	25.5	3.5

Lead encapsulated type, maximum voltage 145-160V

Product Model	Non-operating current	Action current	Max voltage	Maximum current	25°C zero power resistance	Curie temperature	Size (mm)		
	I _N (mA)	I _T (mA)	(V)	(A)	R ₂₅ (Ω)	T _c (°C)	D	H	T
MZ2LX4S05-241□#	47	70	145	0.2	240	140	5.0	10.0	5.0
MZ2LX4S05-101□#	65	100	145	0.3	100	140	5.0	10.0	5.0
MZ2LX4S05-400□#	110	165	145	0.5	40	140	5.0	10.0	5.0
MZ2LX2S07-330□#	130	200	145	0.5	33	120	7.5	11.0	6.0
MZ2LX2S09-220□#	180	280	145	1	22	120	9.5	13.0	6.0
MZ2LX2S11-150□#	220	345	145	1	15	120	11.5	15.0	6.0
MZ2LX2S13-100□#	290	440	145	1	10	120	13.0	16.5	6.0
MZ2LX4S10-6R8□#	320	480	145	3	6.8	140	10.5	15.5	5.0
MZ2LX4S10-5R3□#	360	540	145	3.5	5.3	140	10.5	15.5	5.0
MZ2LX2S17-5R6□#	440	670	145	2	5.6	120	17.0	20.5	6.0
MZ2LX4S16-2R9□#	600	900	145	7.2	2.9	140	16.5	21.5	5.0
MZ2LX4S16-2R1□#	710	1070	145	8.5	2.1	140	16.5	21.5	5.0
MZ2LX4S20-1R7□#	880	1320	145	11	1.7	140	20.5	25.5	5.0
MZ2LX4S20-1R3□#	1000	1500	145	13	1.3	140	20.5	26.0	5.0
MZ2LX6S04-151□#	35	70	160	0.2	150	160	4.0	7.5	5.0
MZ2LX6S06-700□#	70	140	160	0.4	70	160	6.5	10.0	5.0
MZ2LX6S09-250□#	125	500	160	1	25	160	9.0	12.5	5.0
MZ2LX6S11-150□#	180	360	160	1.5	15	160	11.0	14.5	5.0
MZ2LX6S13-100□#	250	500	160	2.2	10	160	13.5	17.0	5.0
MZ2LX6S17-6R0□#	400	800	160	4.1	6	160	17.5	21.0	5.0
MZ2LX6S22-3R7□#	525	1050	160	7	3.7	160	22.0	25.5	5.0

Lead encapsulated type, maximum voltage 265V

Product Model	Non-operating current	Action current	Max voltage	Maximum current	25°C zero power resistance	Curie temperature	Size (mm)		
	I _N (mA)	I _T (mA)	(V)	(A)	R ₂₅ (Ω)	T _c (°C)	D	H	T
MZ2LX4S05-302□#	11	17	265	0.08	3000	140	5.0	8.5	5.5
MZ2LP8S04-151□#	15	40	265	0.2	150	80	4.0	7.5	5.0
MZ2LX2S04-151□#	30	60	265	0.2	150	120	4.0	7.5	5.0
MZ2LP8S06-700□#	30	70	265	0.4	70	80	6.5	10.0	5.0
MZ2LX2S06-121□#	47	75	265	0.4	120	120	6.5	10.0	5.0
MZ2LX3S04-161□#	55	90	265	0.2	160	130	4.0	7.5	5.0
MZ2LX2S06-700□#	55	110	265	0.4	70	120	6.5	10.0	5.0
MZ2LX2S09-650□#	55	110	265	1	65	120	9.0	12.5	5.0
MZ2LX2S09-550□#	60	125	265	1	55	120	9.0	12.5	5.0
MZ2LP8S09-250□#	60	130	265	1	25	80	9.0	12.5	5.0
MZ2LX2S06-820□#	75	125	265	0.5	82	120	6.5	10.0	5.0
MZ2LX2S09-350□#	80	160	265	1	35	120	9.0	12.5	5.0
MZ2LP8S11-150□#	90	180	265	1.5	15	80	11.0	14.5	5.0
MZ2LX3S06-500□#	100	150	265	0.4	50	130	6.5	10.0	5.0
MZ2LX2S09-250□#	100	200	265	1	25	120	9.0	12.5	5.0
MZ2LP8S13-100□#	110	230	265	2.2	10	80	13.5	17.0	5.0
MZ2LX2S10-390□#	130	210	265	1.2	39	120	10.0	13.5	5.0
MZ2LX2S11-150□#	140	280	265	1.5	15	120	11.0	14.5	5.0
MZ2LP8S17-6R0□#	170	350	265	4.1	6	80	17.5	21.5	5.0
MZ2LX3S11-130□#	200	320	265	1.5	13	130	11.0	14.5	5.0
MZ2LX2S13-100□#	200	400	265	2.2	10	120	13.5	17.0	5.0
MZ2LX3S13-9R0□#	330	500	265	2.2	9	130	13.5	17.0	5.0
MZ2LX2S17-6R0□#	330	660	265	4.1	6	120	17.5	21.5	5.0
MZ2LX3S17-5R0□#	450	680	265	4.1	5	130	17.5	21.5	5.0
MZ2LX2S22-3R7□#	460	920	265	7	3.7	120	22.0	26.0	5.0
MZ2LX3S22-3R5□#	650	980	265	7	3.5	130	22.0	26.0	5.0
MZ2LX4S20-2R8□#	700	1050	265	5.5	2.8	140	20.5	26.0	5.5
MZ2LX4S20-2R1□#	800	1200	265	5.5	2.1	140	20.5	26.0	5.5

Lead encapsulated type, maximum voltage 420-1000V

Product Model	Non-operating current	Action current	Max voltage	Maximum current	25°C zero power resistance	Curie temperature	Size (mm)		
	I _N (mA)	I _T (mA)	(V)	(A)	R ₂₅ (Ω)	T _c (°C)	D	H	T
MZ2LX2S06-601□#	21	39	420	0.2	600	120	6.5	10.0	5.0
MZ2LX1S06-152□#	12	24	550	0.1	1500	115	6.5	10.0	5.0
MZ2LX1S06-122□#	15	30	550	0.1	1200	115	6.5	10.0	5.0
MZ2LX0S05-162□#	10	20	600	0.5	1600	100	5.0	10.0	4.5
MZ2LX0S10-400□#	10	50	600	0.5	400	100	10.0	15.0	6.5
MZ2LX0S07-102□#	10	25	1000	0.5	1000	100	7.0	12.0	5.0

Notes:

1. □ represents the R25 deviation range M: ±20% X: ±25% N: ±30% S: Special
2. # represents the internal control code
3. The optional dimensions of the foot pitch F value are 5mm, 7.5mm, 10mm
4. The optional dimensions of the foot length L value are 3mm, 20mm, 25mm, 35mm
5. The optional dimensions of the wire diameter d value are 0.6mm, 0.8mm, 1.0mm.
6. Other specifications or parameters can be customized