

PTC Thermistor Datasheet



1. Introduction to Precision Thermistor for RS232/RS485 Overvoltage Protection

The [Precision Thermistor](#) from the MZ31 series provides exceptional overvoltage protection for RS232 and RS485 interfaces in digital and smart electric meters. These [PTC Electronics](#) are highly reliable and are designed to ensure the safety and performance of your systems by preventing overvoltage issues.

2. Technical Specifications of the Precision Thermistor PTC

The MZ31 series [Thermistor PTC](#) offers a variety of specifications to meet diverse application needs:

1. Non-trip Current: 6 mA to 80 mA
2. Trip Current: 18 mA to 240 mA
3. Dimensions: Dmax 4.5mm to 8.5mm
4. Applications: Suitable for use in digital and smart electric meters, providing protection for RS232 and RS485 interfaces.

For more details on these PTC Devices and their customized solutions, explore the complete technical specifications on our product page.

Item	Precision Thermistor Part No.	Non-trip current I _{h60°C} (mA)	Trip current I _{t25°C/300S} (mA)	Remarks
1	MZ31-06A300-600RM	20	100	Resistance to 220V overvoltage
2	MZ31-06A500-800RM	15	80	
3	MZ31-10A300-600RM	25	150	Resistance to 380V overvoltage
4	MZ31-10A500-800RM	20	120	

Item	Part No.	Non-trip current I _{h60°C} (mA)	Trip current I _{t25°C/300S} (mA)	Dimension (mm)		
				D _{max}	T _{max}	φd
1	MZ31-06E201-401RM	25	85	6.5	5	0.5
2	MZ31-06E301-601RM	20	70	6.5	5	0.5
3	MZ31-06E501-801RM	15	60	6.5	5	0.5
4	MZ31-06E701-102RM	10	45	6.5	5	0.5
5	MZ31-06E901-122RM	8	38	6.5	5	0.5
6	MZ31-04B201-401RM	10	35	4.5	5	0.5
7	MZ31-04B401-701RM	8.5	28	4.5	5	0.5
8	MZ31-04B501-801RM	8	28	4.5	5	0.5
9	MZ31-04B801-122RM	6.5	25	4.5	5	0.5
10	MZ31-04B102-122RM	6	18	4.5	5	0.5
11	MZ31-08E151-251RM	35	90	8.5	5	0.5
12	MZ31-09E200-400RM	80	240	6.5	5	0.5

- Note:
1. R 25 resistance tolerance can be selected per customer's requirement.
 2. Thermistor PTC Encapsulation mode can be made per customer's requirement.
 3. PTC Resistor wire shape kinked form can be selected.

3. Conclusion: Why Choose the MZ31 Series PTC Device for RS485,RS232?

Our MZ31 series Precision Thermistor offers superior overvoltage protection for critical RS232 and RS485 communication interfaces. This PTC Device is reliable and customizable to meet specific protection needs in a variety of industrial and electronic applications. Visit our [PTC Electronics product page](#) for more information on how these solutions can benefit your systems.