

Application Note AN 4

Evaluation board for RS-485 port protection

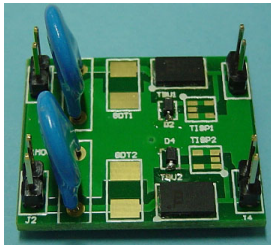
CA065-300-RS485

Device



C-FAP-CA065-300-WH

Evaluation board appearance



Overview

You can evaluate protective operation from overvoltage and overcurrent in the system of RS-485 communication port, external induced noise, static electricity (ESD), and lightning surge.

Solution

1. C-FAP device

C-FAP-CA065-300-WH

2. Over voltage protection (Varistor)

MOV-10D201K

Varistor voltage=200V

Maximum clamp voltage (8/20 μ s)

=340V,25A

3. TVS diode

CDSOT23-SM712

clamp voltage=7 or 12V

Compliant standard

IEC61000-4-2(ESD)

IEC61000-4-4(EFT)

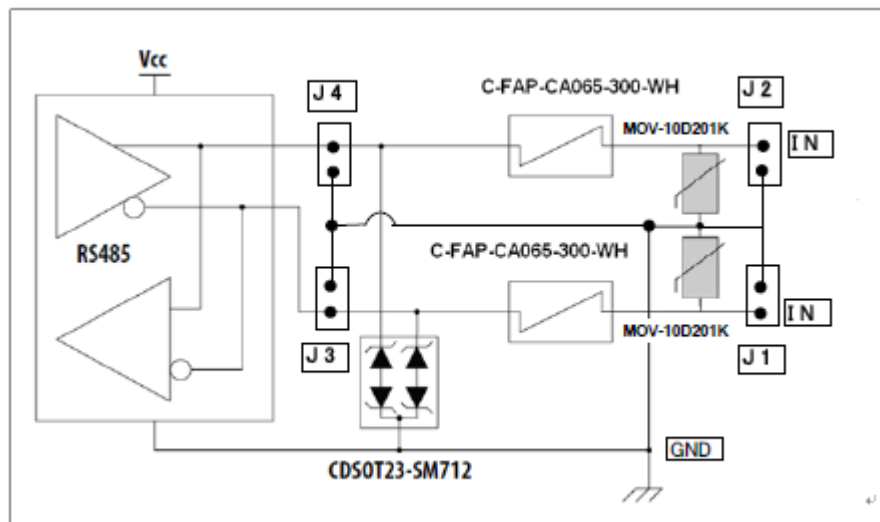
In order to comply with the IEC61000-4-5(surge), it is possible to replace the varistor on the input side with Gas discharge tube(GDT).

GDT model

2030-23T-SM-RPLF

Advantage

This solution provides a high level of protection with a small board area.



The diagram above shows protection in an application, but does not constitute a complete circuit design.

Please check the performance of the device in your application when using it.