



# Satellite Receiver RF Input Surge Protection

## Solution Products



2051-09-SM-RPLF



SMCJ20A/SMLJ20A



CC453232-1R0KL

## Design Kit



PN-DESIGNKIT-46

## Objective

This solution is designed to offer surge protection to the RF input port from a set-top box to a satellite dish. Lightning strikes or near strikes to the building can damage the delicate RF port and the power supply which is fed to the dish.

## Solution

### Option 1

1 TVS Diode: SMCJ20A

### Option 2

1 TVS Diode: SMLJ20A

### Option 3

1 TVS Diode: SMCJ20A

1 GDT: 2051-09-SM-RPLF

1 Wirewound Chip Inductor: CC453232-1R0KL

## Compliance

IEC 61000-4-5:

SMCJ20A alone: 8/20  $\mu$ s surge 150 A

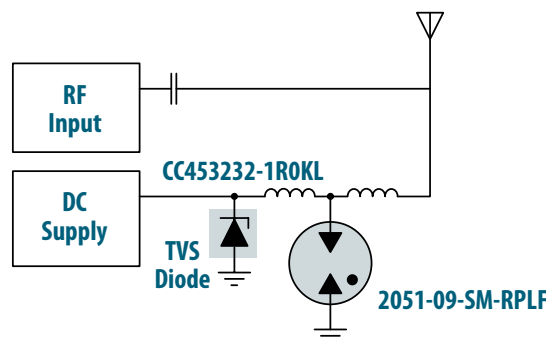
SMLJ20A alone: 8/20  $\mu$ s surge 400 A

SMCJ20A & 2051-09-SM & CC453232:

8/20  $\mu$ s surge 2 kA

## Benefit

This solution provides a low height, high current solution to exposed set-top box applications.



The schematic above illustrates the application protection and does not constitute the complete circuit design. Customers should verify actual device performance in their specific applications.