



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



# Thunderbolt™ Port ESD & Overcurrent Protection

## Solution Products



CDDFN10-0524P



CDSOD323-T05SC



MF-MSMF260-2

## Design Kit



PN-DESIGNKIT-33

## Objective

Thunderbolt™ is an interface for connecting peripheral devices to a computer via an expansion bus. Thunderbolt™ is a 10 Gbps dual-channel, dual-protocol (PCI Express and DisplayPort), bidirectional port. This solution provides ESD and overcurrent protection to this hot-pluggable interface.

## Solution

- 1 TVS Diode Array: CDDFN10-0524P
- 1 TVS Diode: CDSOD323-T05SC
- 1 Multifuse® PPTC Resettable Fuse: MF-MSMF260-2

## Compliance

IEC 61000-4-2 Level 4 (8 kV / 15 kV)

## Alternate Recommendations

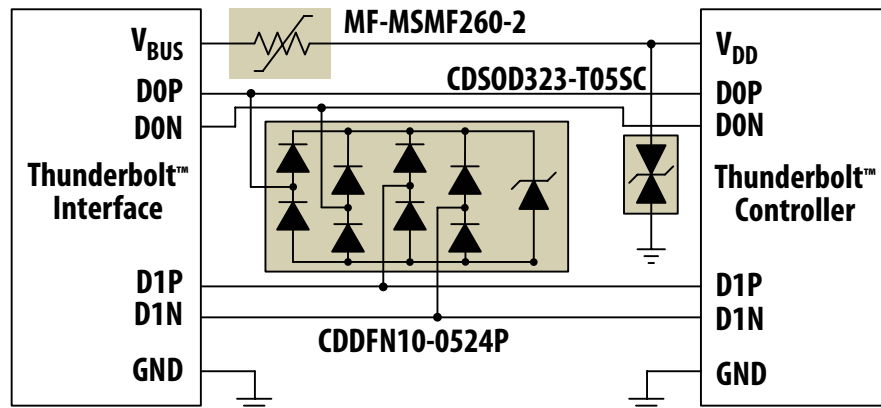
A model CDMSP10-0504M may be used and would replace both the CDDFN10-0524P and the CDSOD323-T05SC devices.

*Other PortNote® Solutions:*

- HDMI 1.4 - ESD & Overcurrent Protection
- DisplayPort 1.2 – ESD & Overcurrent Protection
- USB 3.0 - ESD & Overcurrent Protection

## Benefit

This solution provides ESD protection without impairing the Thunderbolt™ signal.



*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.*