

PROTECTION PRODUCTS - MicroClamp^{AE}

Description

The uClamp[®] series of TVS arrays are designed to protect sensitive electronics from damage or latch-up due to ESD. They are designed to replace multilayer varistors (MLVs) in portable applications. They feature large cross-sectional area junctions for conducting high transient currents and offer superior electrical characteristics such as lower clamping voltage and no device degradation when compared to MLVs. They offer desirable characteristics for board level protection including fast response time, low operating and clamping voltage, and no device degradation.

The μClamp[®]0511P is in a 2-pin, SLP1006P2 package. It measures 1.0 x 0.6 x 0.5mm. The leads are spaced at a pitch of 0.65mm and are finished with lead-free NiPdAu. Each device will protect one bidirectional line operating at ±5 volts. It gives the designer the flexibility to protect single lines in applications where arrays are not practical. They may be used to meet the ESD immunity requirements of IEC 61000-4-2, Level 4 (±15kV air, ±8kV contact discharge). The combination of small size and high ESD surge capability makes them ideal for use in portable applications such as cellular phones, digital cameras, and MP3 players.

Features

- u Transient protection for data lines to IEC 61000-4-2 (ESD) ±15kV (air), ±8kV (contact) IEC 61000-4-4 (EFT) 40A (tp = 5/50ns) Cable Discharge Event (CDE)
- u Ultra-small package (1.0 x 0.6 x 0.5mm)
- u Protects one I/O or power line
- u Low clamping voltage
- u Working voltage: 5V
- u Low leakage current
- u Solid-state silicon-avalanche technology

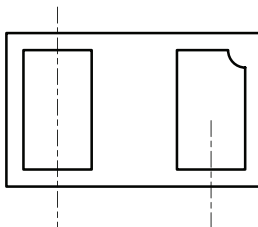
Mechanical Characteristics

- u SLP1006P2 package
- u Molding compound flammability rating: UL 94V-0
- u Packaging : Tape and Reel
- u Lead Finish: NiPdAu
- u Pb-Free, Halogen Free, RoHS/WEEE Compliant

Applications

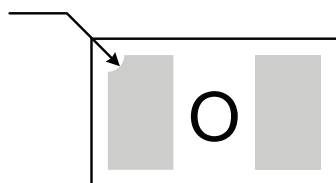
- u Cellular Handsets & Accessories
- u Cordless Phones
- u Smart Phones
- u Notebooks & Handhelds
- u Portable Instrumentation
- u Digital Cameras
- u MP3 Players
- u Automotive Applications

Package Dimensions



Schematic & Pin Configuration

SLP1006P2 (Bottom View)

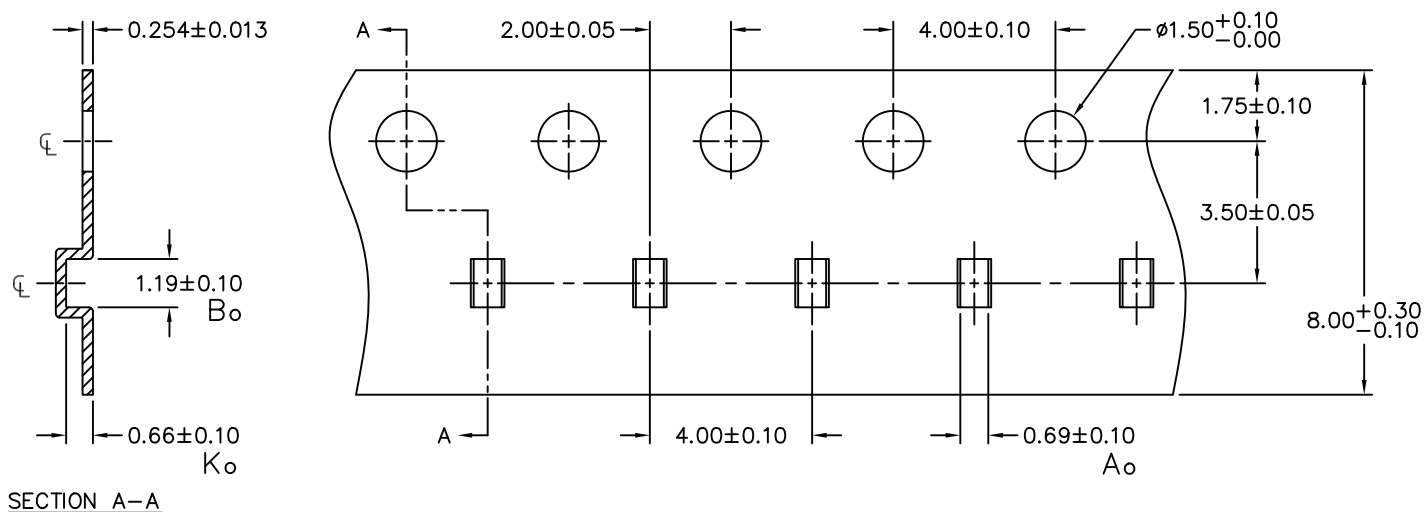


1) Device is electrically symmetrical

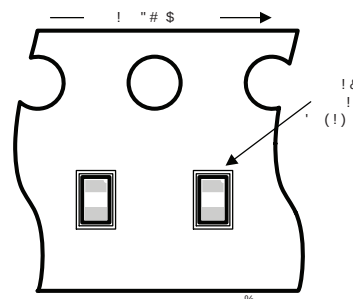
Part Number	Qty per Reel	Reel Size
uClamp0511P.TCT	3,000	7 Inch
uClamp0511P.TNT	10,000	7 Inch

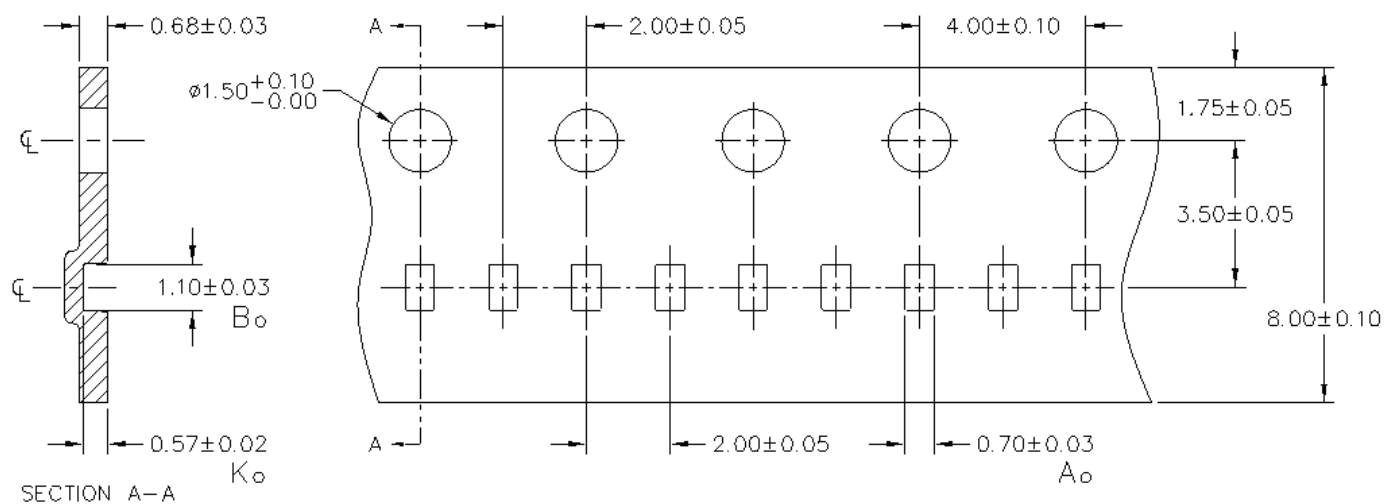
MicroClamp, uClamp and mClamp are marks of Semtech Corporation.

Tape and Reel Specification (4mm Pitch, 3,000 Piece Reel)



NOTES: 1.) ALL DIMENSIONS IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.





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Contact Information

Semtech Corporation
Protection Products Division
200 Flynn Rd., Camarillo, CA 93012
Phone: (805)498-2111 FAX (805)498-3804