



4-channel EMI Filter with ESD Protection Diode Chip Scale Packaging (CSP)

Features

- Four (4) Low pass EMI filters with excellent attenuation at high frequencies
- ESD protection at 15KV per IEC61000
- Very small 9-bump CSP device (2.47mm x 0.97mm)
- Special back coating for maximum durability
- RoHS Compliant in Lead-Free Versions
- Complies with the following standards:
 - IEC 61000-4-2 (ESD) Air-15kv, Contact-8kv
 - IEC 61000-4-4 (EFT) (5/50ns)
 - IEC 61000-4-5 (Surge) (8/20µs)

Applications

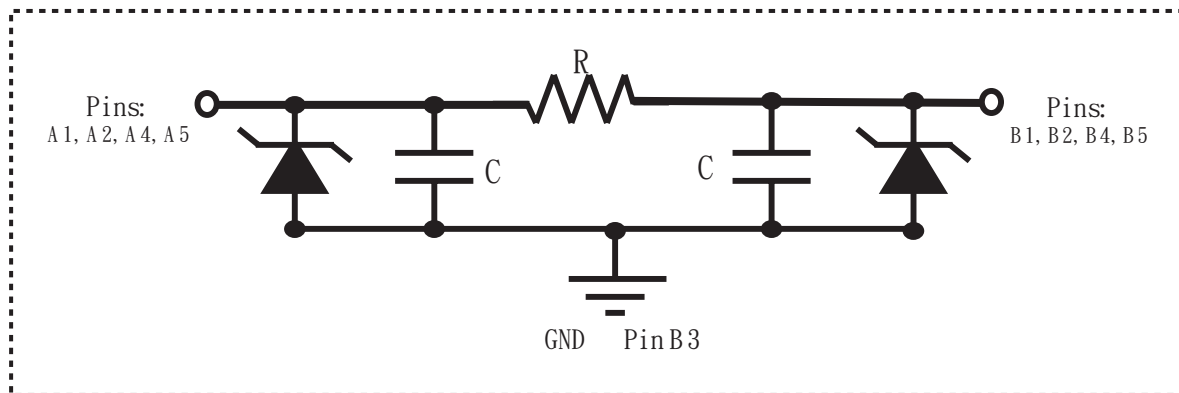
- Cellular Handsets
- PDA
- Mp3 Players
- PC & Notebooks
- Smart Cards
- Digital Cameras

Product Description

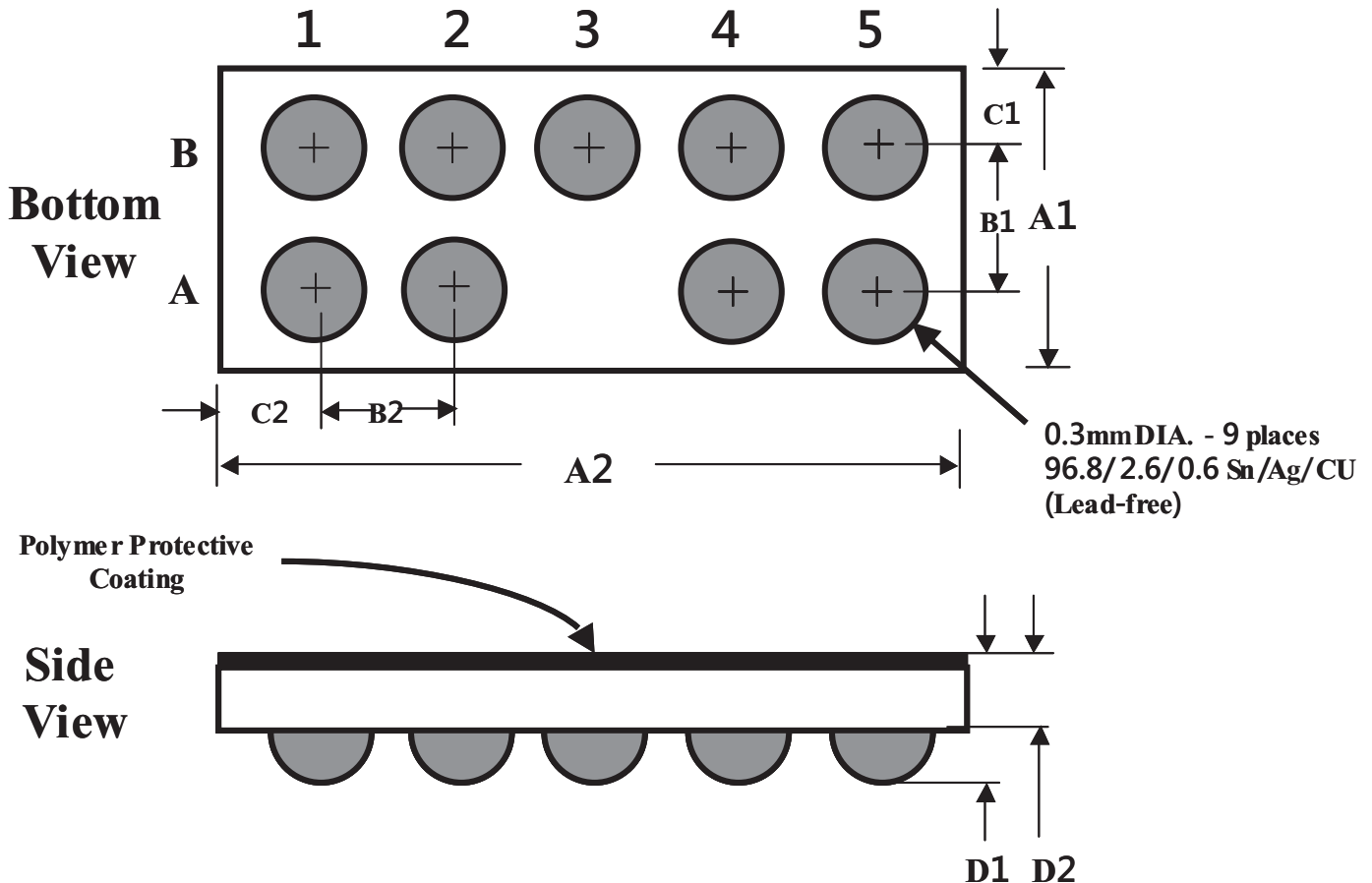
The UMD1425-03CP is a 4-channel pi-style Capacitor-Resistor-Capacitor EMI/RFI Filter with integrated Diodes for electrostatic discharge (ESD) protection. This device offers greater than 30dB attenuation in the 800MHz to 3GHz. The diodes provide a 15kV contact-discharge ESD protection per IEC-61000 specifications.

The device is built in a 9-bump CSP format with 0.5mm pitch and is ideal for portable electronic systems.

Schematic for Each Line



| ELECTRICAL CHARACTERISTICS PER LINE @ 25°C Unless Otherwise Specified | | | | | | | | |
|---|-------------------------|---------------------------|---------------------------------|-------------------------|--|---|---------------------|----------------------|
| PART NUMBER | RATED STAND-OFF VOLTAGE | MINIMUM BREAKDOWN VOLTAGE | MAXIMUM REVERSE LEAKAGE CURRENT | TYPICAL FORWARD VOLTAGE | MINIMUM ATTENUATION @ 800 to 3,000 MHz | CUT-OFF FREQUENCY 50-OHMS SOURCE & LOAD | RESISTANCE R +/-20% | CAPACITANCE C +/-20% |
| UMD1425-03CP | 6 Volts | 7 Volts | 0.1 uA | 0.8 Volts | -30dB | 86 MHz | 100-ohms | 20-pF |

Mechanical Package Diagram


| Package Dimensions | | | | | | |
|---------------------------|------------------|-------|-------|------------|--------|--------|
| Dimensions | Millimeters (mm) | | | Inches (") | | |
| | Min. | Typ. | Max. | Min. | Typ. | Max. |
| A1 | 0.925 | 0.970 | 1.015 | 0.0364 | 0.0382 | 0.0400 |
| A2 | 2.425 | 2.470 | 2.515 | 0.0955 | 0.0972 | 0.0990 |
| B1 | 0.495 | 0.500 | 0.505 | 0.0195 | 0.0197 | 0.0199 |
| B2 | 0.495 | 0.500 | 0.505 | 0.0195 | 0.0197 | 0.0199 |
| C1 | 0.185 | 0.235 | 0.285 | 0.0073 | 0.0093 | 0.0112 |
| C2 | 0.185 | 0.235 | 0.285 | 0.0073 | 0.0093 | 0.0112 |
| D1 | 0.575 | 0.644 | 0.714 | 0.0226 | 0.0254 | 0.0281 |
| D2 | 0.368 | 0.419 | 0.470 | 0.0145 | 0.0165 | 0.0185 |
| Parts/reel | 3,500 | | | | | |
| Controlling Dimension: mm | | | | | | |