

Packaged EMI Filter with ESD Protection Diode

PRODUCT DESCRIPTION

The UMD1431-04 Array is a pi-style Capacitor-Resistor-Capacitor EMI/RFI Filter with integrated Diodes for electrostatic discharge (ESD) protection. Housed in miniature UDFN Packages this product is available in 4 channels filters. This device has a cut-off frequency of 110MHz and can be used in applications with data rates up to 80Mbps.

UDFN packages come in 8-lead (4-channel); and are available both in 0.4mm and 0.5mm pad pitch. The 0.4mm pitch package provides a 40% PCB space savings compared to the 0.5mm format.

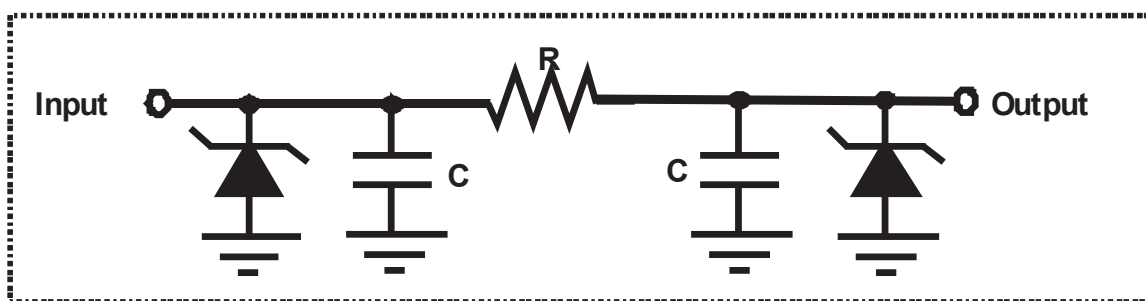
FEATURES

- ※ Low pass EMI filters with excellent attenuation at high frequencies
- ※ ESD protection at 15KV per IEC61000
- ※ Offered in UDFN package
- ※ 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

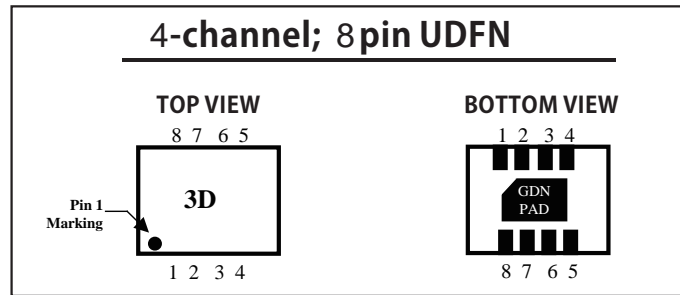
Schematic for Each Line



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%
UMD 1431-04	6 Volts	7 Volts	0.1 uA	0.8 Volts	-25dB	110 MHz	100-ohms	15-pF

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Number of Channels/Package Options

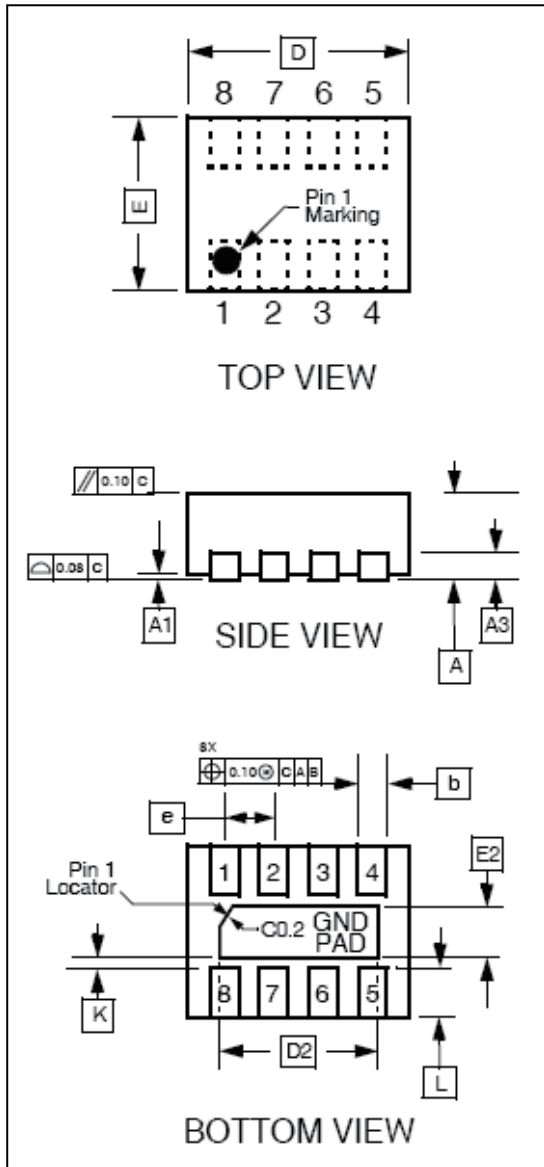


DEVICE CHARACTERISTICS

MAXIMUM RATINGS @ 25°C Unless Otherwise Specified		
PARAMETER	VALUE	UNITS
Operating Temperature	-40°C to 85°C	°C
Storage Temperature	-55°C to 150°C	°C
Soldering Temperature for 10 seconds	265	°C

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UDFN-8 Dimension Drawing



Dim	Dimensions			
	Inches		mm	
	Min	Max	Min	Max
A	0.028	0.031	0.70	0.80
A1	0.000	0.002	0.00	0.05
A3	0.008 REF		0.20 REF	
b	0.006	0.010	0.15	0.25
D	0.065	0.069	1.65	1.75
D2	0.043	0.051	1.10	1.30
E	0.051	0.055	1.30	1.40
E2	0.012	0.020	0.30	0.50
e	0.016 BSC		0.40 BSC	
K	0.008		0.20	
L	0.006	0.014	0.15	0.35