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.

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NUF4210MN

Low Capacitance 4 Line EMI Filter with ESD Protection in DFN8 1.6 x 1.6 mm Package

This device is a 4 line EMI filter array for wireless applications. Greater than −20 dB attenuation is obtained at frequencies from 800 MHz to 3.0 GHz. It also offers ESD protection−clamping transients from static discharges. ESD protection is provided across all capacitors.

Features

- EMI Filtering and ESD Protection
- Integration of 20 Discrete Components
- Compliance with IEC61000−4−2 (Level 4)
  >8 kV (Contact)
- DFN Package, 1.6 x 1.6 mm
- Moisture Sensitivity Level 1
- ESD Ratings: Machine Model = C
  Human Body Model = 3B
- This is a Pb−Free Device*

Benefits

- Reduces EMI/RFI Emmisions on a Data Line
- Integrated Solution Offers Cost and Space Savings
- Reduces Parasitic Inductances Which Offer a More “Ideal” Low Pass Filter Response
- Integrated Solution Improves System Reliability

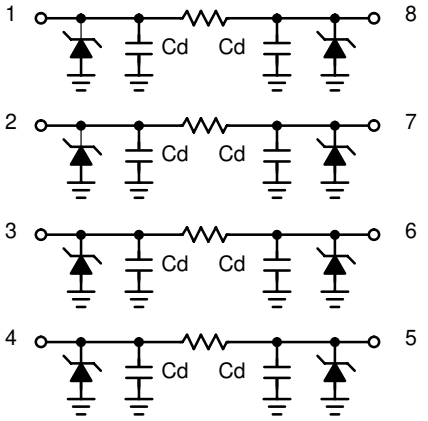
Applications

- EMI Filtering and ESD Protection for Data Lines
- Wireless Phones
- Handheld Products
- Notebook Computers
- LCD Displays

*For additional information on our Pb−Free strategy and soldering details, please download the ON Semiconductor Soldering and Mounting Techniques Reference Manual, SOLDERRM/D.

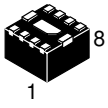
ON Semiconductor®

http://onsemi.com

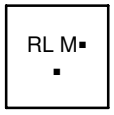


(Top View)

MARKING DIAGRAM

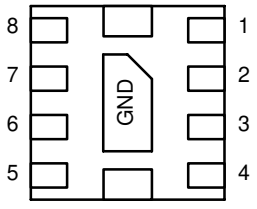


DFN8
CASE 506AK



RL = Specific Device Code
M = Date Code
▪ = Pb−Free Device
(Note: Microdot may be in either location)

PIN CONNECTIONS



(Bottom View)

ORDERING INFORMATION

Device	Package	Shipping†
NUF4210MNT1G	DFN8 (Pb−Free)	3000 / Tape & Reel

†For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specifications Brochure, BRD8011/D.

MAXIMUM RATINGS

Parameter	Symbol	Value	Unit
ESD Discharge IEC61000−4−2 Contact Discharge Machine Model Human Body Model	V_{PP}	 8.0 0.4 8.0	kV
Operating Temperature Range	T_{OP}	−40 to 85	°C
Storage Temperature Range	T_{STG}	−55 to 150	°C
Maximum Lead Temperature for Soldering Purposes (1.8 in from case for 10 seconds)	T_L	260	°C

Maximum ratings are those values beyond which device damage can occur. Maximum ratings applied to the device are individual stress limit values (not normal operating conditions) and are not valid simultaneously. If these limits are exceeded, device functional operation is not implied, damage may occur and reliability may be affected.

ELECTRICAL CHARACTERISTICS (T_J = 25°C unless otherwise noted)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Maximum Reverse Working Voltage	V_{RWM}				5.0	V
Breakdown Voltage	V_{BR}	I_R = 1.0 mA	6.0	7.0	8.0	V
Leakage Current	I_R	V_{RWM} = 3.3 V			100	nA
Resistance	R_A	I_R = 10 mA	85	100	115	Ω
Capacitance (Notes 1 and 2)	Cd	V_R = 2.5 V, f = 1.0 MHz	–	8.5	11	pF
Cut−Off Frequency (Note 3)	f_{3dB}	Above this frequency, appreciable attenuation occurs		250		MHz

1. Measured at 25°C.
2. Total Line Capacitance is two times the Diode Capacitance (Cd).
3. 50 Ω source and 50 Ω load termination.

TYPICAL PERFORMANCE CURVES (T_A= 25°C unless otherwise specified)

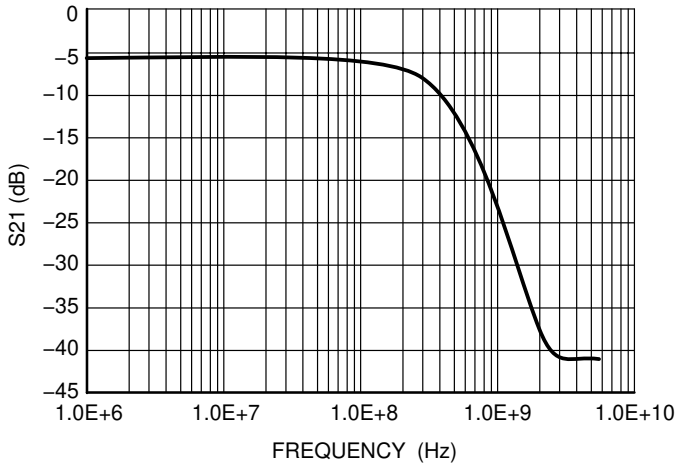


Figure 1. Insertion Loss Characteristic

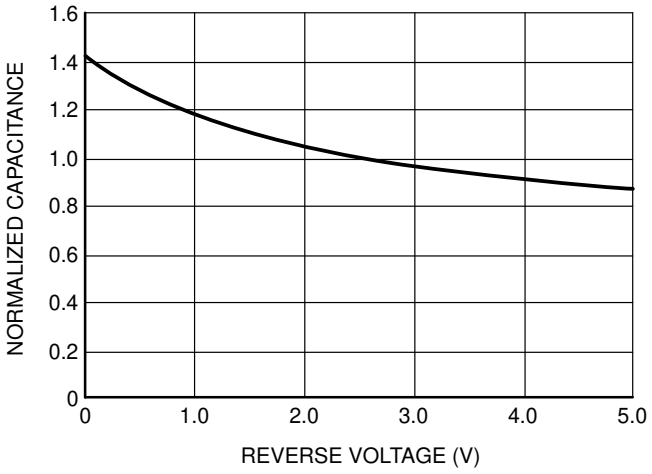


Figure 2. Typical Capacitance

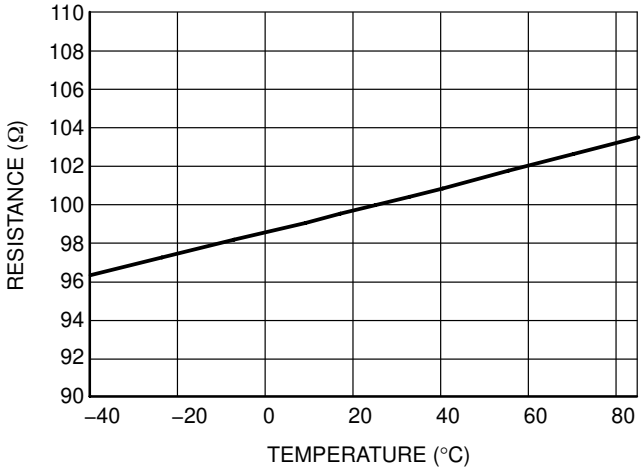
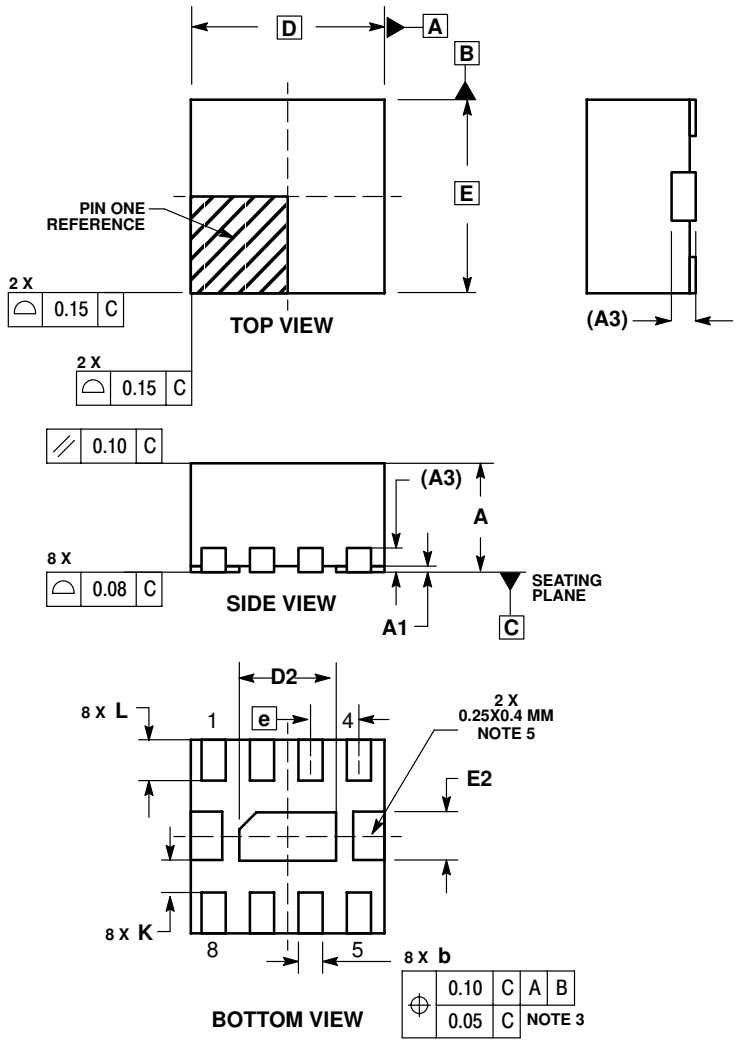


Figure 3. Typical Resistance over Temperature

PACKAGE DIMENSIONS

DFN8
CASE 506AK−01
ISSUE A



NOTES:
1. DIMENSIONING AND TOLERANCING PER ASME Y14.5M, 1994.
2. CONTROLLING DIMENSION: INCHES.
3. DIMENSION b APPLIES TO THE EXPOSED PAD AS WELL AS TEH TERMINALS.
4. DIMENSION b APPLIES TO THE EXPOSED PAD AS WELL AS THE TERMINALS.
5. EXPOSED PADS CONNECTED TO DIE FLAG. USED AS TEST CONTACTS.

	MILLIMETERS	
DIM	MIN	MAX
A	0.80	1.00
A1	0.00	0.05
A3	0.20 REF	
b	0.15	0.25
D	1.60 BSC	
D2	0.70	0.90
E	1.60 BSC	
E2	0.30	0.50
e	0.40 BSC	
K	0.20	−−−
L	0.20	0.40

PUBLICATION ORDERING INFORMATION

LITERATURE FULFILLMENT:
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