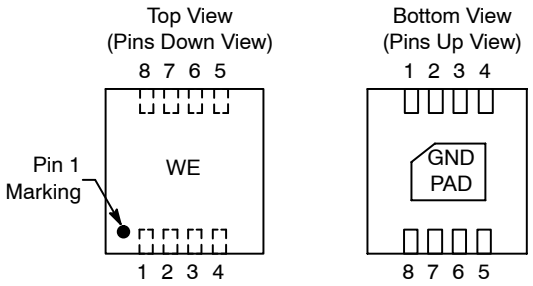
PACKAGE / PINOUT DIAGRAMS



CM1431−04DE
8 Lead WDFN Package

Table 1. PIN DESCRIPTIONS

Device Pin(s)	Name	Description	Device Pin(s)	Name	Description
1	FILTER1	Filter + ESD Channel 1	8	FILTER1	Filter + ESD Channel 1
2	FILTER2	Filter + ESD Channel 2	7	FILTER2	Filter + ESD Channel 2
3	FILTER3	Filter + ESD Channel 3	6	FILTER3	Filter + ESD Channel 3
4	FILTER4	Filter + ESD Channel 4	5	FILTER4	Filter + ESD Channel 4
GND PAD	GND	Device Ground			

SPECIFICATIONS

Table 2. ABSOLUTE MAXIMUM RATINGS

Parameter	Rating	Units
Storage Temperature Range	−65 to +150	°C
DC Power per Resistor	100	mW
DC Package Power Rating	500	mW

Stresses exceeding Maximum Ratings may damage the device. Maximum Ratings are stress ratings only. Functional operation above the Recommended Operating Conditions is not implied. Extended exposure to stresses above the Recommended Operating Conditions may affect device reliability.

Table 3. STANDARD OPERATING CONDITIONS

Parameter	Rating	Units
Operating Temperature Range	−40 to +85	°C

SPECIFICATIONS (Cont'd)

Table 4. ELECTRICAL OPERATING CHARACTERISTICS (Note 1)

Symbol	Parameter	Conditions	Min	Typ	Max	Units
R	Resistance		80	100	120	Ω
C_{TOTAL}	Total Channel Capacitance	At 2.5 V DC Reverse Bias, 1 MHz, 30 mV AC	24	30	36	pF
C	Capacitance C	At 2.5 V DC Reverse Bias, 1 MHz, 30 mV AC	12	15	18	pF
I_{LEAK}	Diode Leakage Current (Reverse Bias)	V_{DIODE} = 3.3 V		0.1	1.0	μA
V_{SIG}	Signal Clamp Voltage Positive Clamp Negative Clamp	 I_{LOAD} = 10 mA I_{LOAD} = −10 mA	 5.6 −0.4	 6.8 −0.8		V
V_{ESD}	In−system ESD Withstand Voltage a) Human Body Model, MIL−STD−883, Method 3015 b) Contact Discharge per IEC 61000−4−2 Level 4	(Note 2)	 ±30 ±15			kV

1. T_A = 25°C unless otherwise specified.
2. ESD applied to input and output pins with respect to GND, one at a time.

PERFORMANCE INFORMATION

Typical Diode Capacitance vs. Input Voltage

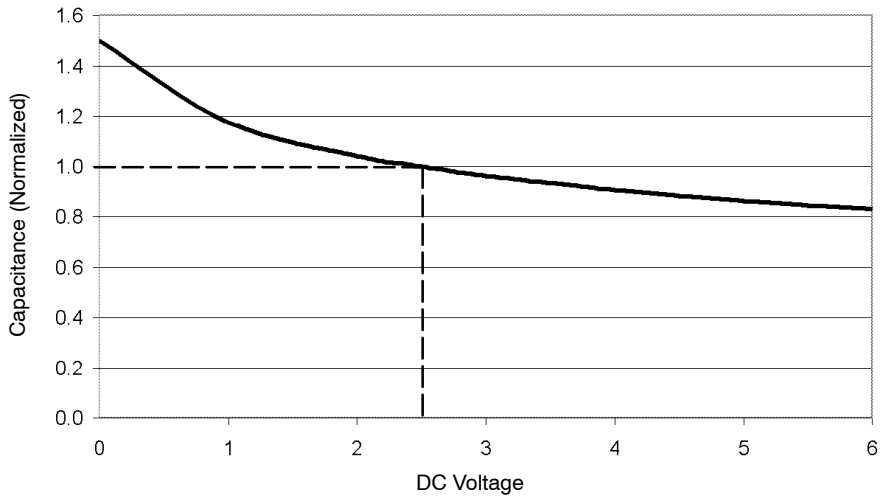


Figure 1. Filter Capacitance vs. Input Voltage (normalized to capacitance at 2.5 V DC and 25°C)

PERFORMANCE INFORMATION (Cont'd)

Typical Filter Performance (T_A = 25°C, DC Bias = 0 V, 50 Ω Environment)

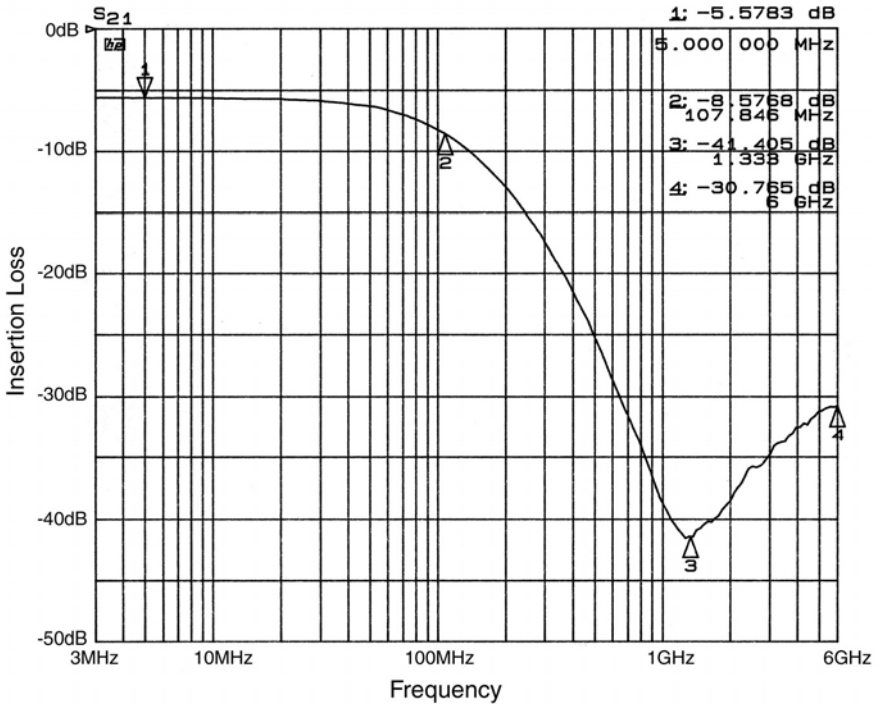


Figure 2. Insertion Loss vs. Frequency (FILTER1 Input to GND)

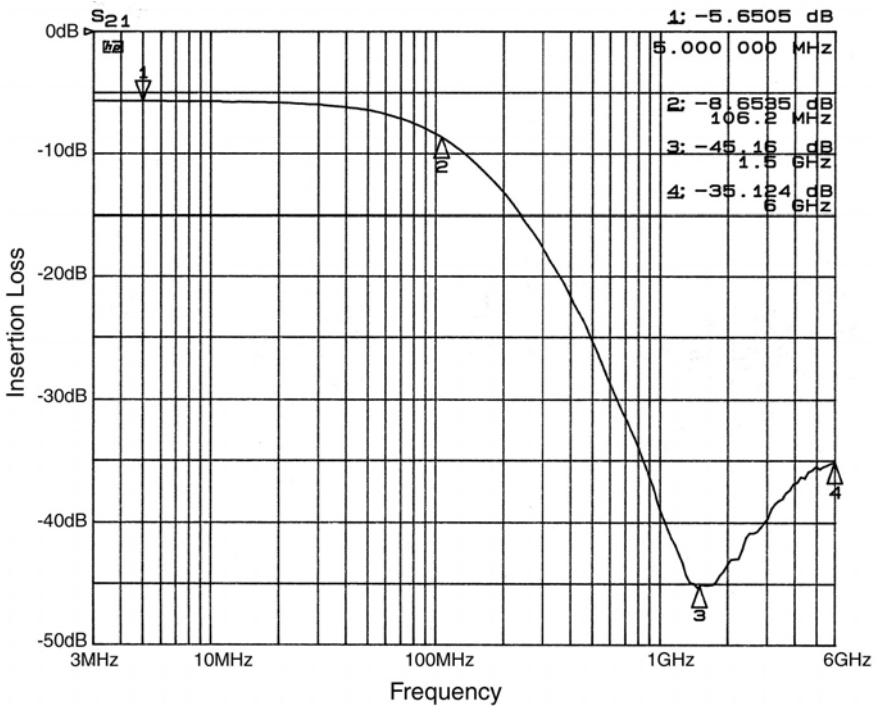


Figure 3. Insertion Loss vs. Frequency (FILTER2 Input to GND)

PERFORMANCE INFORMATION (Cont'd)

Typical Filter Performance (T_A = 25°C, DC Bias = 0 V, 50 Ω Environment)

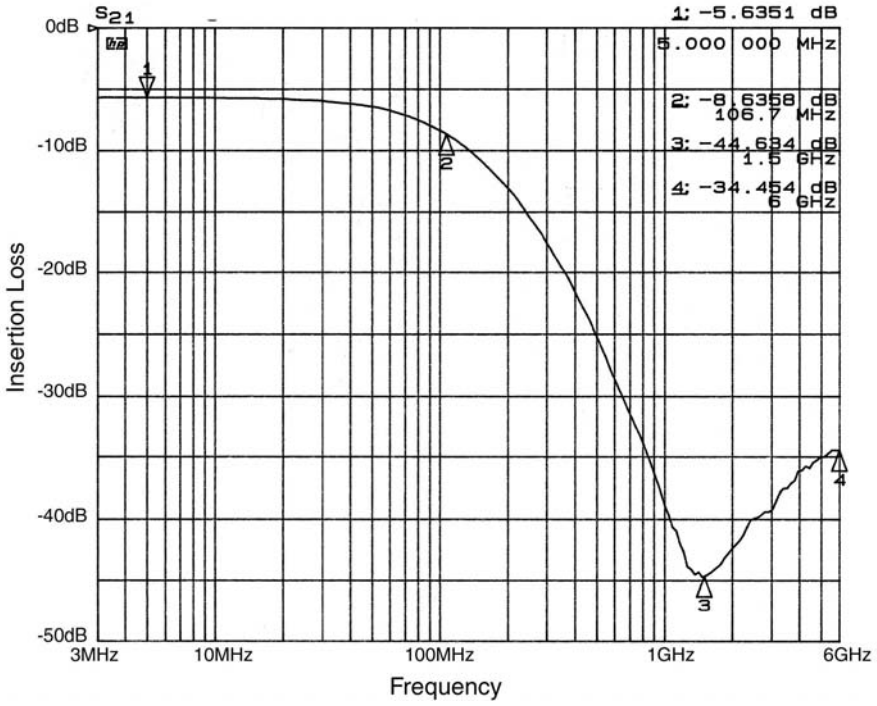


Figure 4. Insertion Loss vs. Frequency (FILTER3 Input to GND)

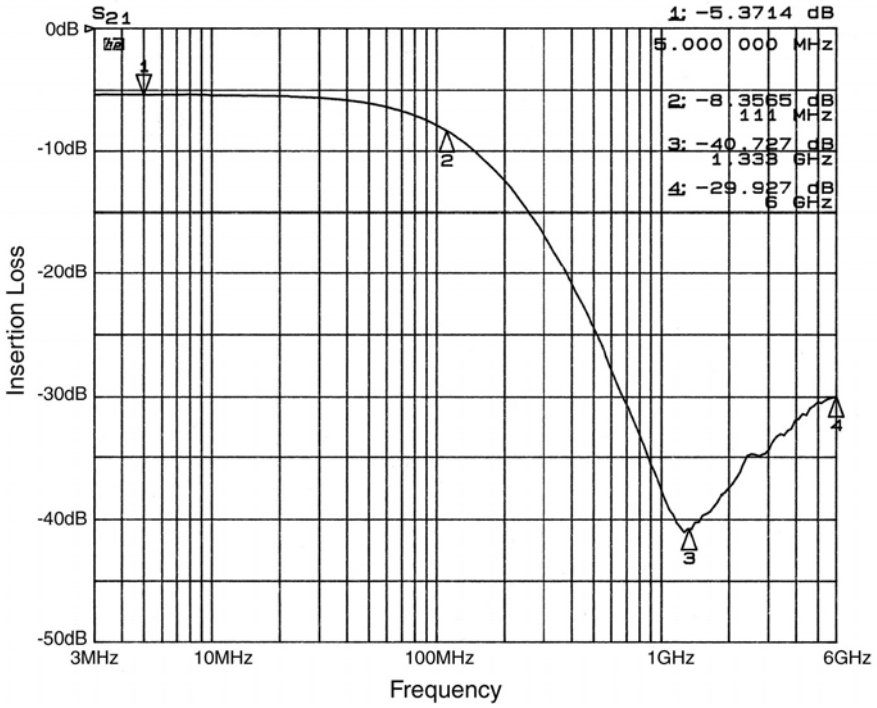
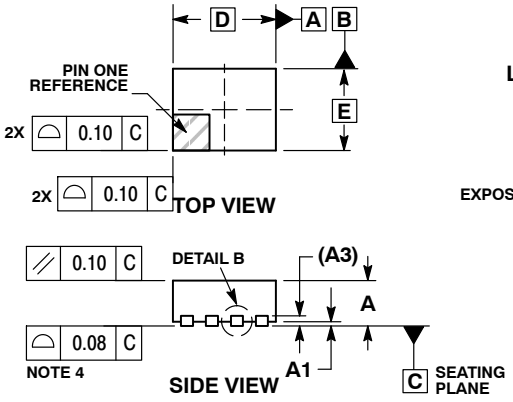
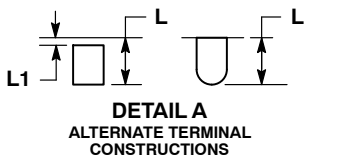


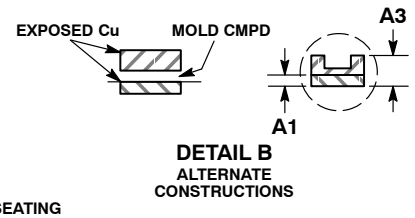
Figure 5. Insertion Loss vs. Frequency (FILTER4 Input to GND)

PACKAGE DIMENSIONS

WDFN8, 1.7x1.35, 0.4P
CASE 511BF−01
ISSUE O

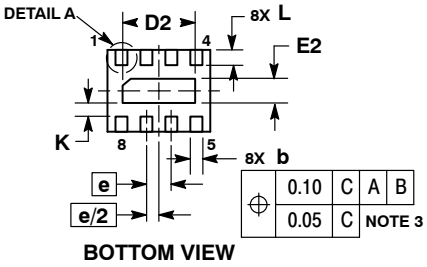




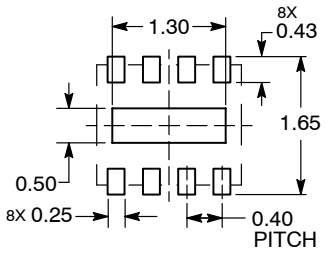


NOTES:
1. DIMENSIONING AND TOLERANCING PER ASME Y14.5M, 1994.
2. CONTROLLING DIMENSION: MILLIMETERS.
3. DIMENSION b APPLIES TO PLATED TERMINAL AND IS MEASURED BETWEEN 0.15 AND 0.30 MM FROM TERMINAL TIP.
4. COPLANARITY APPLIES TO THE EXPOSED PAD AS WELL AS THE TERMINALS.

	MILLIMETERS	
DIM	MIN	MAX
A	0.70	0.80
A1	0.00	0.05
A3	0.20 REF	
b	0.15	0.25
D	1.7 BSC	
D2	1.10	1.30
E	1.35 BSC	
E2	0.30	0.50
e	0.40 BSC	
K	0.22 REF	
L	0.15	0.35
L1	−−−	0.15



RECOMMENDED SOLDERING FOOTPRINT*



DIMENSION: MILLIMETERS

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

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