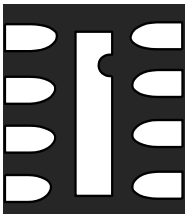
WEF04-1005F1

Multi-function integrated TVS

Features

- EMI symmetrical(I/O) low-pass filter
- Filter performance: 30 dB minimum attenuation 900 MHz to 1.8GHz
- High efficiency in ESD suppression on inputs pins
- High reliability offered by monolithic integration
- High reduction of parasitic elements through integration and wafer level packaging
- Lead-free package
- TVS working voltage:5V



DFN-8L
(bottom view)

IEC COMPATIBILITY

- IEC 61000-4-2 level 4 input pins-15kV (air), -8kV (contact)

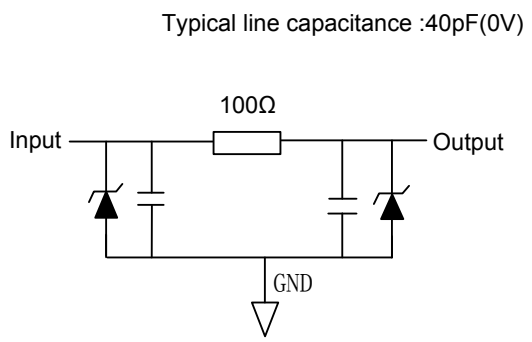
Mechanical Characteristics

- DFN-8L Package
- Molding compound flammability rating:
- UL 94V-0
- Marking: Marking Code
- Packaging: Tape and Reel per EIA 481
- ROHS/WEEE Compliant

Applications

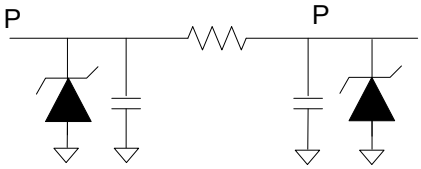
- LCD and camera for mobile phones
- Cell phone CCD camera lines
- Clamshell cell phone

Circuit Diagram (Each Line Pair)



Basic Cell Configuration

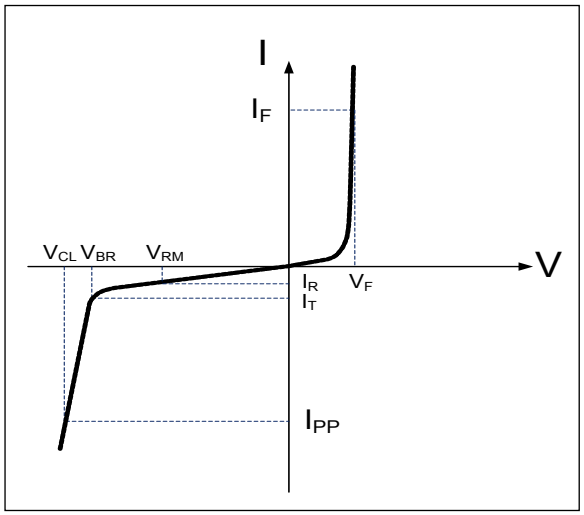
Schematic & PIN Configuration



Absolute Maximum Rating			
Rating	**Symbol**	**Value**	**Units**
ESD IEC 61000-4-2(air) ESD IEC 61000-4-2(contact)	V_{PP}	15 8	kV
Junction temperature	T_j	125	℃
Operating Temperature	T_J	-40 to + 85	℃
Storage Temperature	T_{STG}	-55 to +150	℃

Electrical Parameters (T=25℃)

Symbol	Parameter
I_{PP}	Maximum Reverse Peak Pulse Current
V_{CL}	Clamping Voltage @ I_{PP}
V_{RM}	Working Peak Reverse Voltage
I_R	Maximum Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current
I_F	Forward Current
V_F	Forward Voltage @ I_F



Electrical Characteristics

WEF04-1005F1						
Parameter	**Symbol**	**Conditions**	**Min**	**Typical**	**Max**	**Units**
Reverse Stand-Off Voltage	V_{RWM}				5	V
Forward Voltage	V_F	I_F=10mA	0.5	1	1.5	V
Reverse Breakdown Voltage	V_{BR}	I_T=1mA	6	8	10	V
Reverse Leakage Current	I_R	V_{RWM}=5V,T=25℃			1	μA
Total Series Resistance	R	Each Line	80	100	120	Ω
Total Capacitance	C_{in}	Input to Gnd, Each Line V_R = 0V, f = 1MHz	38	45	52	pF

Typical Characteristics

Figure 1. S21 attenuation measurement

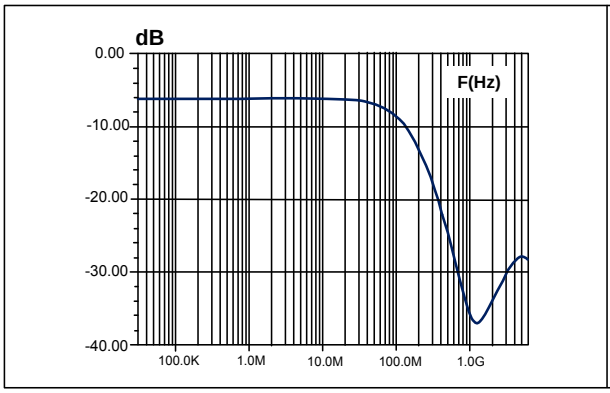


Figure 2. Analog cross talk measurements

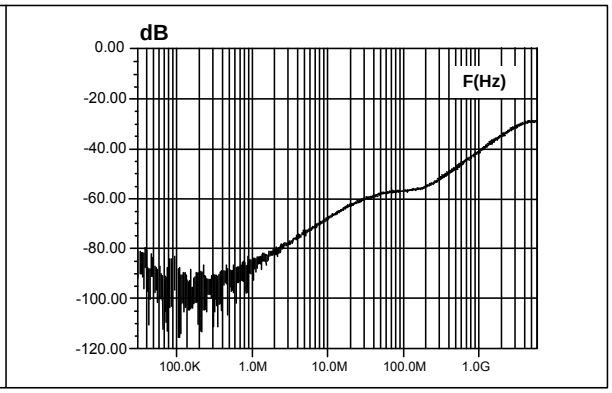


Figure 3. ESD response to IEC 61000-4-2 (+15kV air discharge) on one input (V_{in}) and on one output

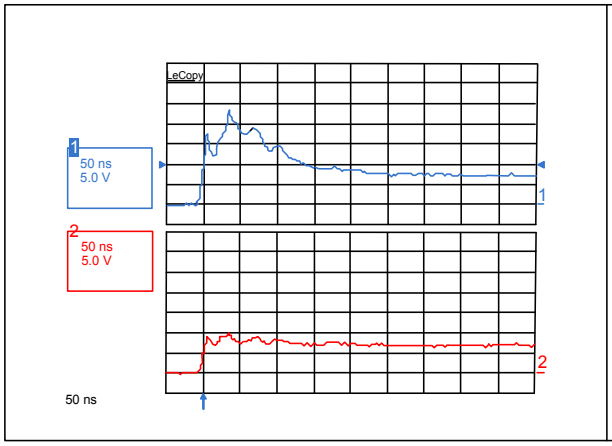


Figure 4. ESD response to IEC 61000-4-2 (-15kV air discharge) on one input (V_{in}) and on one output

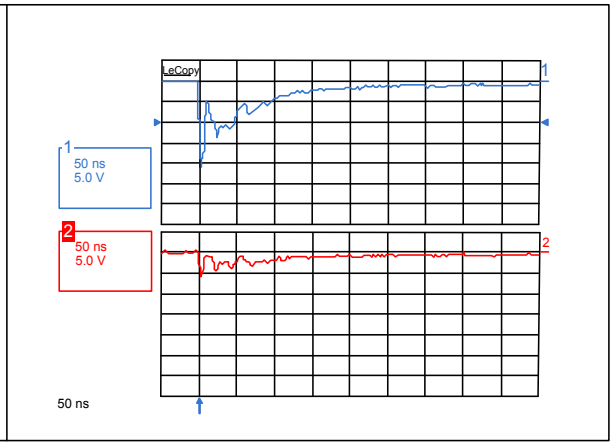
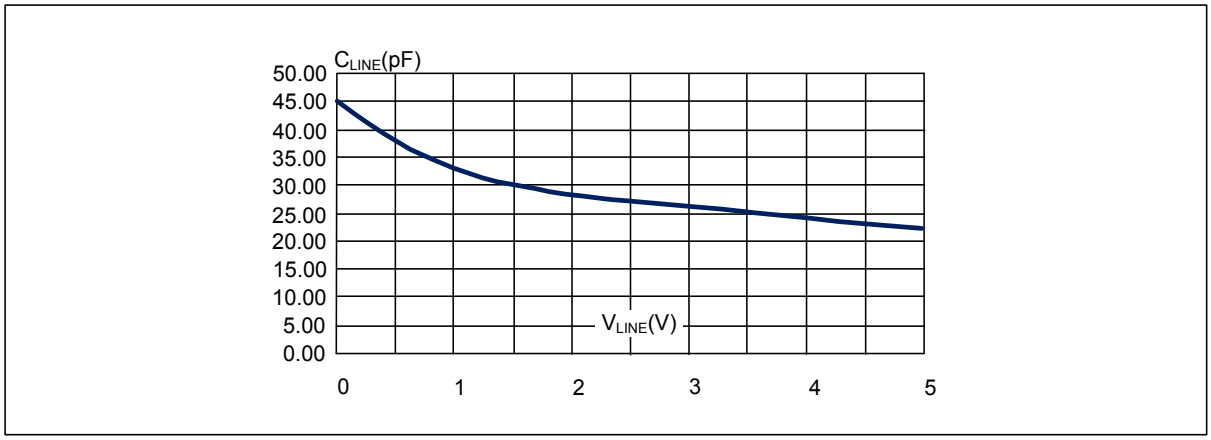
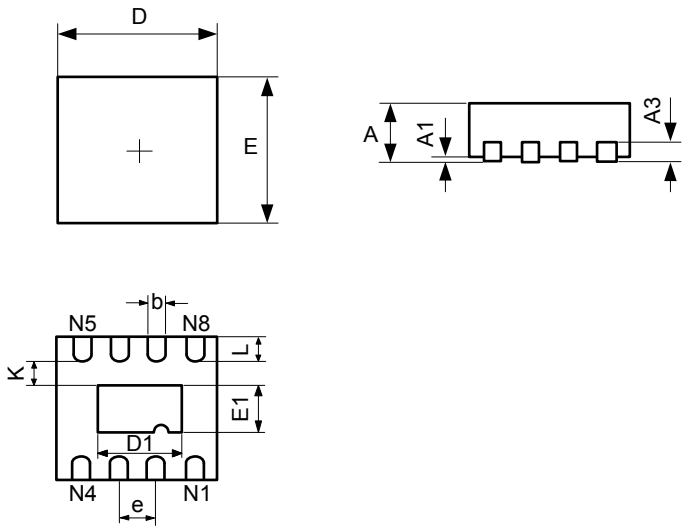
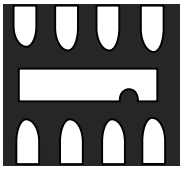


Figure 5. Line capacitance versus reverse volgage applied(typical value)



Outline Drawing DFN-8L





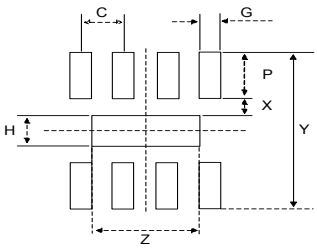
DFN-8L

DEMENSIONS				
DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	0.700/0.800	0.800/0.900	0.028/0.031	0.031/0.035
A1	0.000	0.050	0.000	0.002
A3	0.203REF		0.008REF	
D	1.900	2.100	0.075	0.083
D1	1.100	1.300	0.043	0.051
E	1.900	2.100	0.075	0.083
E1	0.500	0.700	0.020	0.028
k	0.200MIN.		0.008MIN.	
b	0.180	0.300	0.007	0.012
e	0.500TYP		0.020TYP	
L	0.250	0.450	0.010	0.018

NOTES:

1. Controlling Dimensions Are In Millimeters (Angles In Degrees).
2. Coplanarity Applies To The Exposed Pad As Well As The Terminals.

FOOTPRINT



DIM	INCHES	DIM	INCHES
C	0.40	Y	2.10
G	0.20	Z	1.00
P	0.60	H	0.40
X	0.25		

Notes

1. Controlling Dimensions Are In Millimeters(Angles In Degrees)
2. This Land Pattern Is For Reference Purposes Only. Consult Your Manufacturing Group To Ensure Your Company's Manufacturing Guidelines Are Met.

MARKING