

### APPLICATION

- I/O ESD protection for mobile handsets, notebook, PDAs, etc.
- EMI filtering for data ports in cell phones, PDAs, notebook computers
- EMI filtering for LCD, camera and chip-to-chip data lines

### FEATURES

- EMI/RFI filtering
- ESD Protection to IEC 61000-4-2 Level 4
- Low insertion loss
- Good attenuation of high frequency signals
- Low clamping voltage
- Low operating and leakage current
- Four elements in one package

### DESCRIPTION

PV1005UDF8B is an EMI filter array with electrostatic discharge (ESD) protection, which integrates four pi filters (C-R-C). These parts include ESD protection diodes on every pin, providing a very high level of protection for sensitive electronic components that may be subjected to electrostatic discharge.

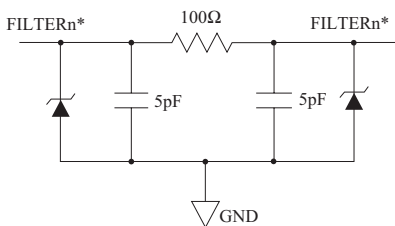
The PV1005UDF8B provides the recommended line termination while implementing a low pass filter to limit EMI levels and providing ESD protection which exceeds IEC 61000-4-2 level 4 standard. The UDFN package is a very effective PCB space occupation and a very thin package (0.4mm Pitch, 0.5mm height)

### MAXIMUM RATING (Ta=25 °C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
DC Power Per Resistor	$P_R$	100	mW
Power Dissipation	$*P_D$	400	
Junction Temperature	$T_j$	150	°C
Storage Temperature	$T_{stg}$	-55 150	°C

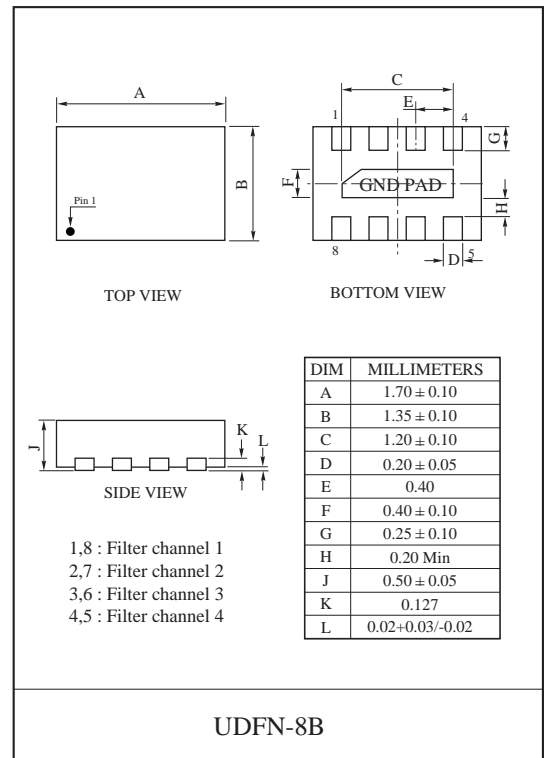
\* Total Package Power Dissipation

### EQUIVALENT CIRCUIT

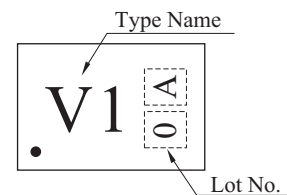


### ELECTRICAL CHARACTERISTICS (Ta=25 °C)

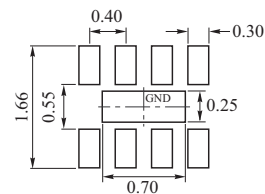
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Reverse Stand-Off Voltage	$V_{RWM}$	-	-	-	5	V
Reverse Breakdown Voltage	$V_{BR}$	$I_L=1mA$	6	-	-	V
Reverse Leakage Current	$I_R$	$V_{RWM}=3.3V$	-	-	1.0	μA
Cutoff Frequency	$f_{c-3dB}$	$V_{Line}=0V, Z_{SOURCE}=50, Z_{LOAD}=50$	-	300	-	MHz
Channel Resistance	$R_{LINE}$	Between Input and Output	80	100	120	
Line Capacitance	$C_{LINE}$	$V_{Line}=0V$ DC, 1MHz, Between I/O Pins and GND	12	15	18	pF
		$V_{Line}=2.5V$ , 1MHz, Between I/O Pins and GND	8	10	12	



### MARKING

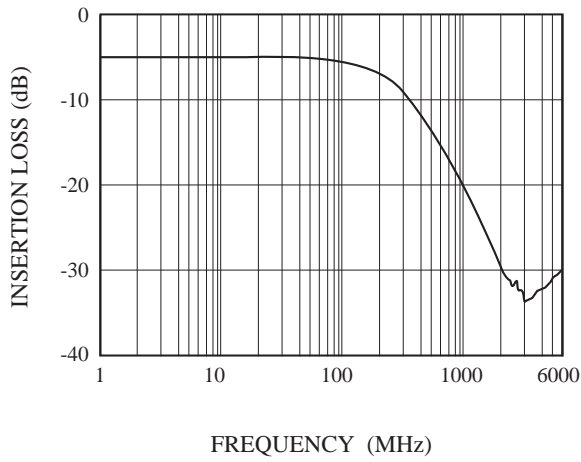


### RECOMMENDED FOOTPRINT (dimensions in mm)

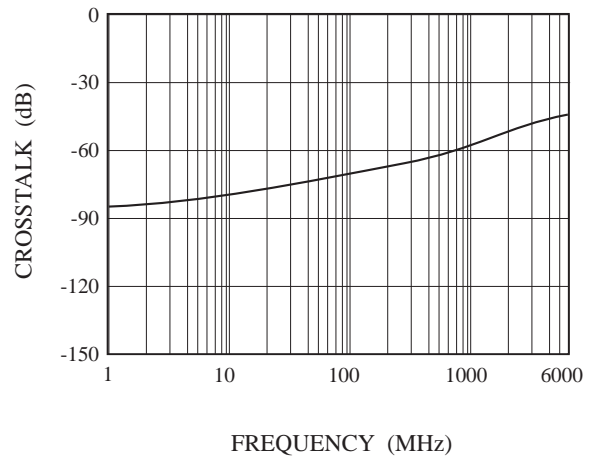


# PV1005UDF8B

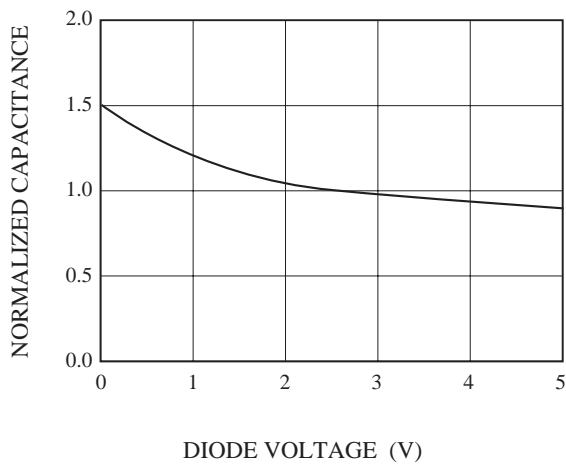
### S<sub>21</sub> - FREQUENCY



### ANALOG CROSSTALK



### DIODE CAPACITANCE vs. INPUT VOLTAGE



### R<sub>Line</sub> - TEMPERATURE

