

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
- Six elements in one package

DESCRIPTION

PF1005UDF12B is an EMI filter array with electrostatic discharge (ESD) protection, which integrates six 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.

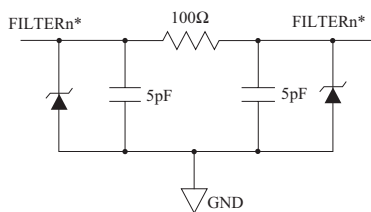
The PF1005UDF12B provides the recommended line termination while implementing a low pass filter to limit EMI levels and providing ESD protection which exceeds IEC 61000-4-2 level 4 standard. The UDFN package is a very effective PCB space occupation and a very thin package (0.4mm Pitch, 0.5mm height)

MAXIMUM RATING (Ta=25 °C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
DC Power Per Resistor	P_R	100	mW
Power Dissipation	$*P_D$	600	
Junction Temperature	T_j	150	°C
Storage Temperature	T_{stg}	-55 150	°C

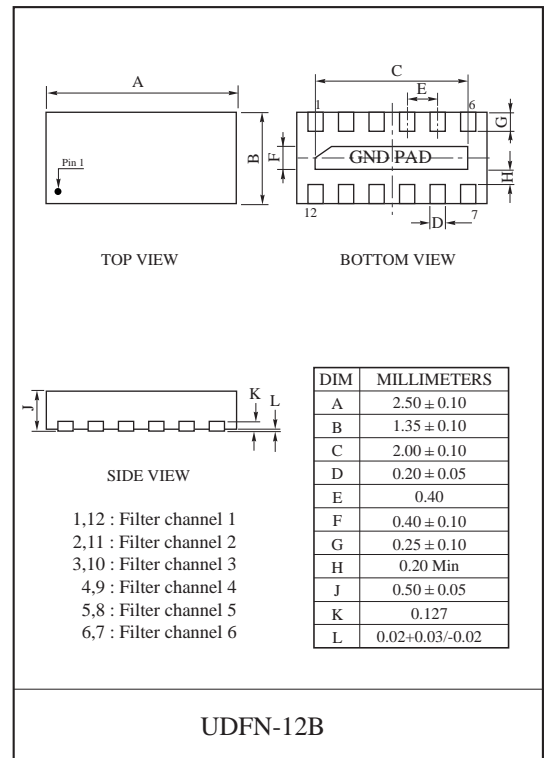
* Total Package Power Dissipation

EQUIVALENT CIRCUIT

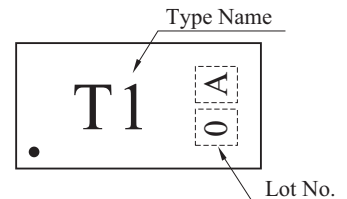


ELECTRICAL CHARACTERISTICS (Ta=25 °C)

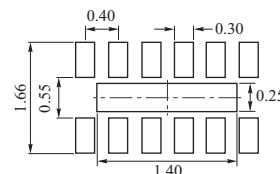
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Reverse Stand-Off Voltage	V_{RWM}	-	-	-	5	V
Reverse Breakdown Voltage	V_{BR}	$I_f=1mA$	6	-	-	V
Reverse Leakage Current	I_R	$V_{RWM}=3.3V$	-	-	1.0	μA
Cutoff Frequency	f_{c-3dB}	$V_{Line}=0V, Z_{SOURCE}=50, Z_{LOAD}=50$	-	300	-	MHz
Channel Resistance	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

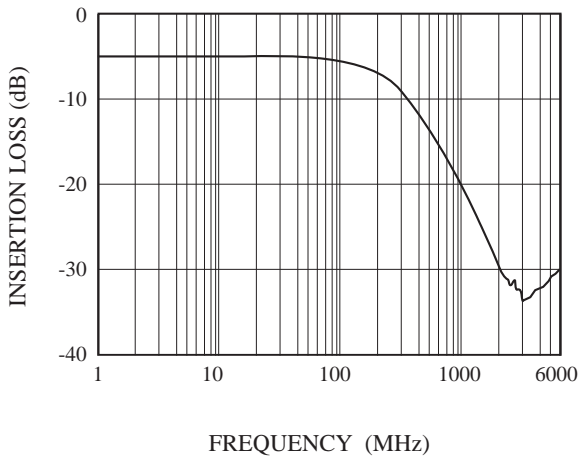


RECOMMENDED FOOTPRINT (dimensions in mm)

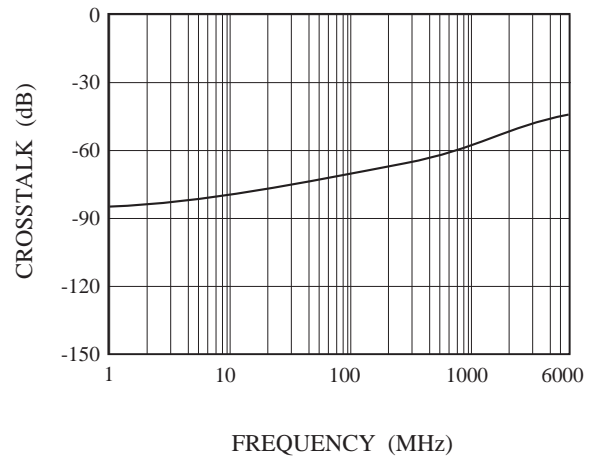


PF1005UDF12B

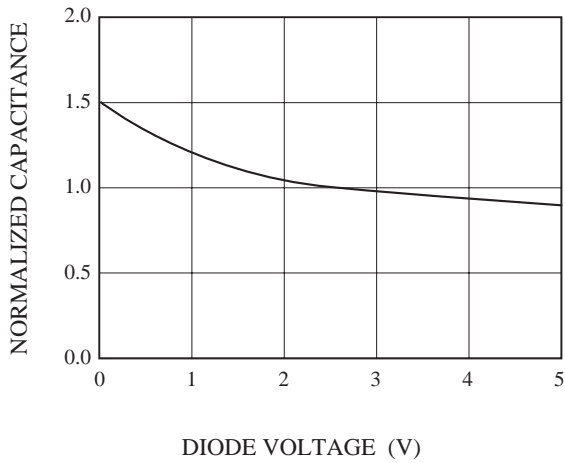
S₂₁ - FREQUENCY



ANALOG CROSSTALK



DIODE CAPACITANCE vs. INPUT VOLTAGE



R_{Line} - TEMPERATURE

