

1 Characteristics

Table 1. Absolute maximum ratings ($T_{amb} = 25\text{ }^{\circ}\text{C}$)

Symbol	Parameter and test conditions	Value	Unit
T_j	Maximum junction temperature	125	$^{\circ}\text{C}$
T_{op}	Operating temperature range	-40 to +85	$^{\circ}\text{C}$
T_{stg}	Storage temperature range	-55 to 150	$^{\circ}\text{C}$

Table 2. Electrical characteristics ($T_{amb} = 25\text{ }^{\circ}\text{C}$)

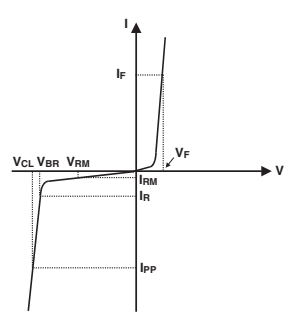
Symbol	Parameters					
V_{BR}	Breakdown voltage					
I_{RM}	Leakage current @ V_{RM}					
V_{RM}	Stand-off voltage					
V_{CL}	Clamping voltage					
I_{PP}	Peak pulse current					
$R_{I/O}$	Series resistance between input and output					
C_{line}	Input capacitance per line					
Symbol	Test conditions	Min	Typ	Max	Unit	
V_{BR}	$I_R = 1\text{ mA}$	6	8	10	V	
I_{RM}	$V_{RM} = 3\text{ V}$		50	200	nA	
R_2	Tolerance $\pm 20\%$		70		Ω	
C_{line}	$V_{line} = 0\text{ V}$, $V_{OSC} = 30\text{ mV}$, $F = 1\text{ MHz}$			30	pF	

Figure 3. Attenuation measurement and Aplac simulation

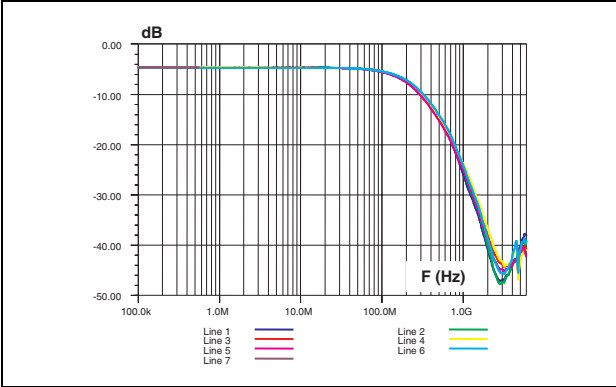


Figure 4. Analog cross talk measurement

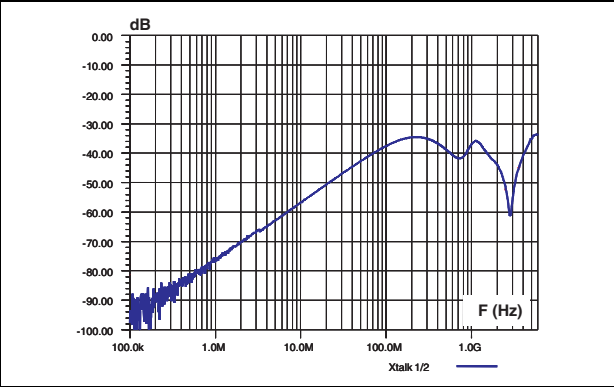


Figure 5. Voltages when IEC 61000-4-2 (+15 kV air discharge) applied to input pin

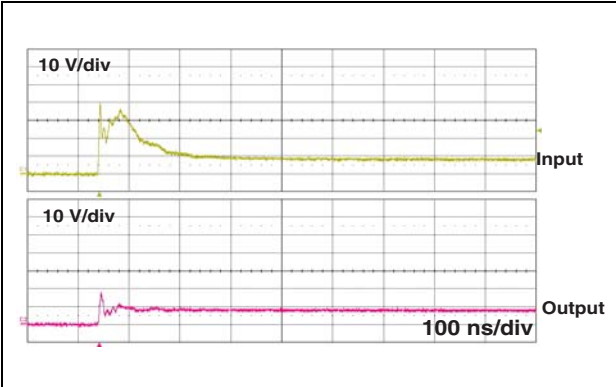


Figure 6. Voltages when IEC 61000-4-2 (-15 kV air discharge) applied to input pin

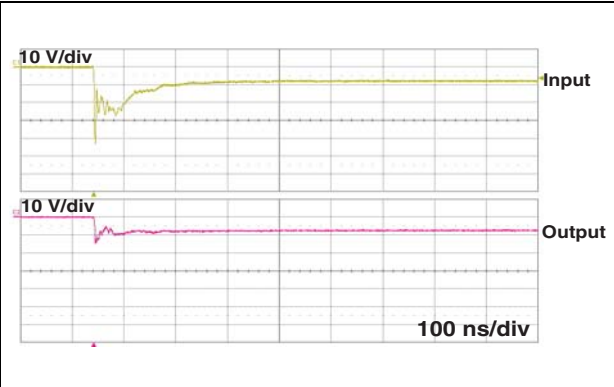
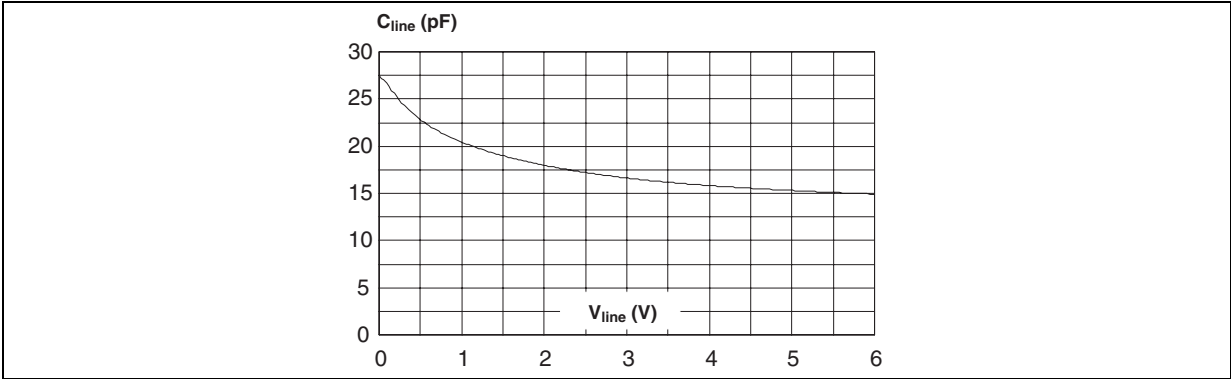


Figure 7. Line capacitance versus applied voltage



2 Application information

Figure 8. Aplac model

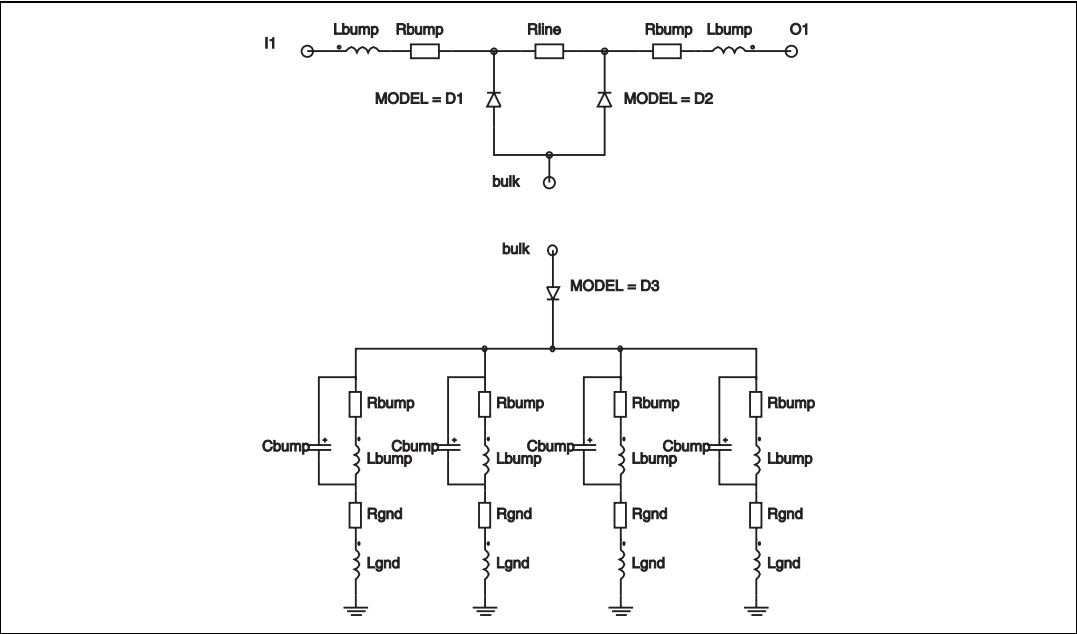
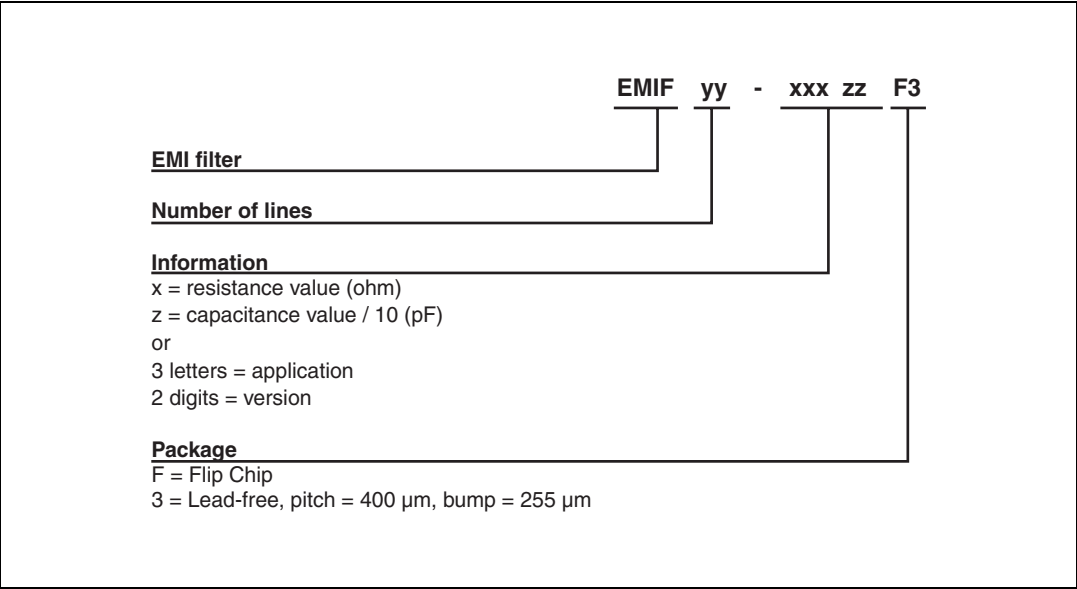


Figure 9. Aplac parameters

aplacvar Rline 70			
aplacvar C_d1 15p			
aplacvar C_d2 15p			
aplacvar C_d3 600p			
aplacvar Ls 950pH	Diode D1	Diode D2	Diode D3
aplacvar Rs 150m	BV=7	BV=7	BV=7
aplacvar Lbump 50pH	IBV=1m	IBV=1m	IBV=1m
aplacvar Rbump 20m	CJO=C_d1	CJO=C_d2	CJO=C_d3
aplacvar Cbump 150f	M=0.28	M=0.28	M=0.28
aplacvar Lgnd 50pH	RS=0.1	RS=0.1	RS=0.01
aplacvar Rgnd 100m	VJ=0.6	VJ=0.6	VJ=0.6
aplacvar Rsub 10m	TT=100n	TT=100n	TT=100n

3 Ordering information scheme

Figure 10. Ordering information scheme



4 Package information

In order to meet environmental requirements, ST offers these devices in different grades of ECOPACK® packages, depending on their level of environmental compliance. ECOPACK® specifications, grade definitions and product status are available at: www.st.com. ECOPACK® is an ST trademark.

Figure 11. Package dimensions

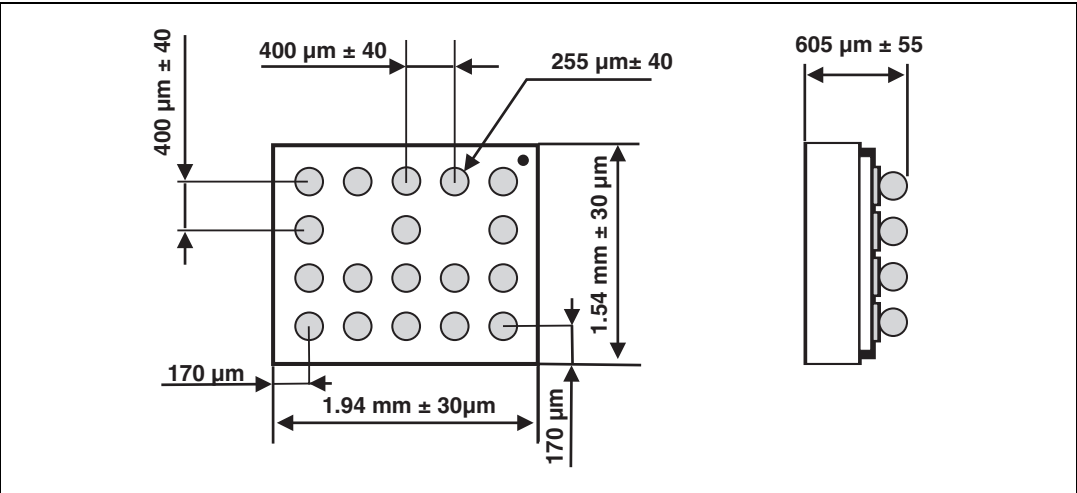


Figure 12. Footprint

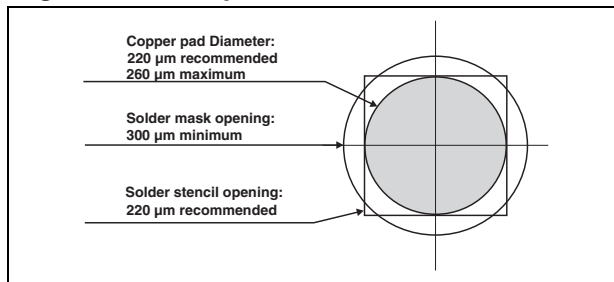


Figure 13. Marking

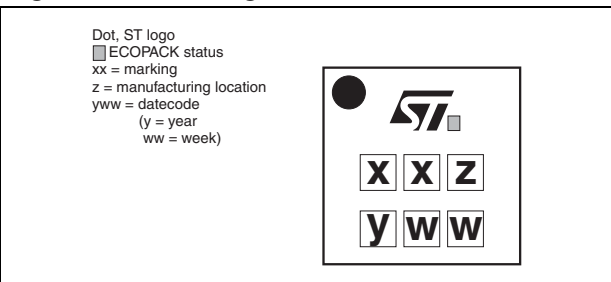
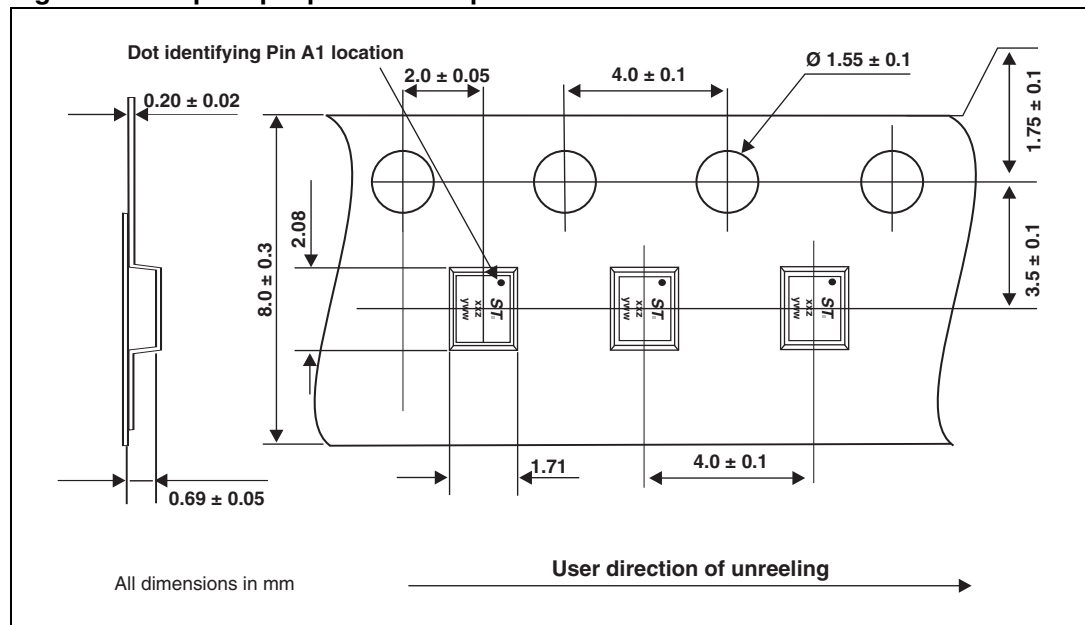


Figure 14. Flip Chip tape and reel specification



Note: More information is available in the application notes:

AN2348: “STMicroelectronics 400 micro-metre Flip Chip : Package description and recommendation for use”

AN1751: "EMI filters: Recommendations and measurements"

5 Ordering information

Table 3. Ordering information

Order code	Marking	Package	Weight	Base qty	Delivery mode
EMIF07-LCD02F3	GX	Flip Chip	3.9 mg	5000	Tape and reel 7"

6 Revision history

Table 4. Document revision history

Date	Revision	Changes
12-Sep-2005	1	First issue.
28-Apr-2008	2	Updated ECOPACK statement. Updated Figure 10 , Figure 11 and Figure 14 . Reformatted to current standards.
19-Feb-2010	3	Updated die size in Figure 11 .

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