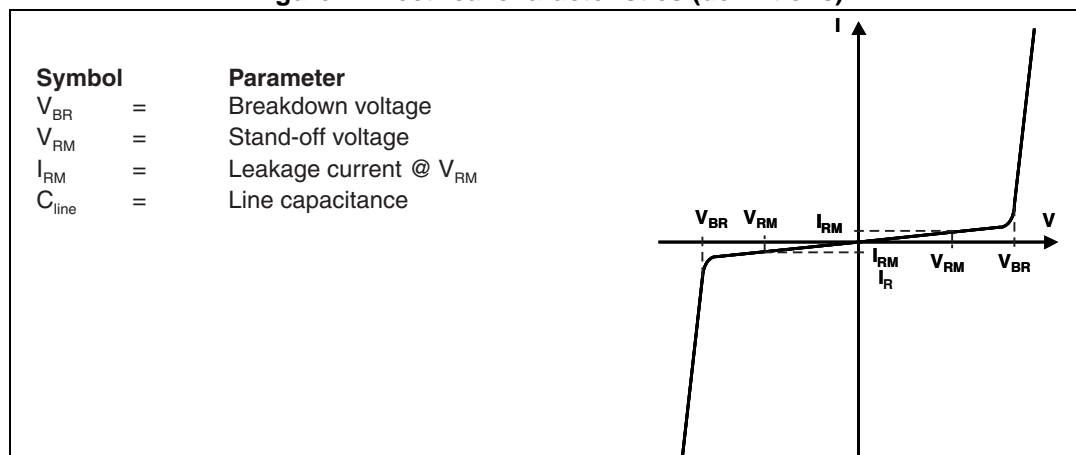


# 1 Electrical characteristics

**Table 2. Absolute maximum ratings ( $T_{amb} = 25\text{ }^{\circ}\text{C}$ )**

Symbol	Parameter and test conditions	Value	Unit
$V_{PP}$	Internal pins (A4, B4, C3, C4, D3, D4):		
	ESD discharge IEC61000-4-2, air discharge	2	kV
	ESD discharge IEC61000-4-2, contact discharge	2	
	External pins (A1, A2, A3, B1, B2, C1, D1):		
	ESD discharge IEC61000-4-2, air discharge	15	
	ESD discharge IEC61000-4-2, contact discharge	8	
$T_j$	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	$^{\circ}\text{C}$

**Figure 2. Electrical characteristics (definitions)**

**Table 3. Electrical characteristics ( $T_{amb} = 25\text{ }^{\circ}\text{C}$ )**

Symbol	Test conditions	Tolerance	Min.	Typ.	Max.	Unit
$V_{BR}$	$I_R = 1\text{ mA}$		14			V
$I_{RM}$	$V_{RM} = 3\text{ V}$				0.1	$\mu\text{A}$
$C_{line}$	@ 0 V				20	pF
$R_2, R_3, R_4, R_5, R_6, R_7$	$I = 50\text{ mA}$	$\pm 20\%$		50		$\Omega$
$R_{10}, R_{11}, R_{12}, R_{13}$	$I = 50\text{ }\mu\text{A}$	$\pm 30\%$		75		k $\Omega$
$R_{14}$	$I = 200\text{ }\mu\text{A}$	$\pm 30\%$		7		k $\Omega$

Figure 3. S21 (dB) attenuation measurement

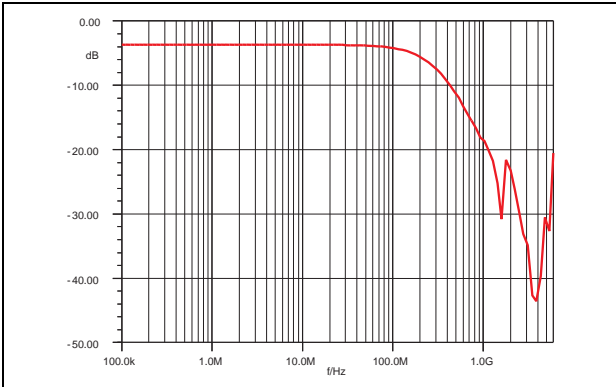


Figure 4. Analog crosstalk measurements

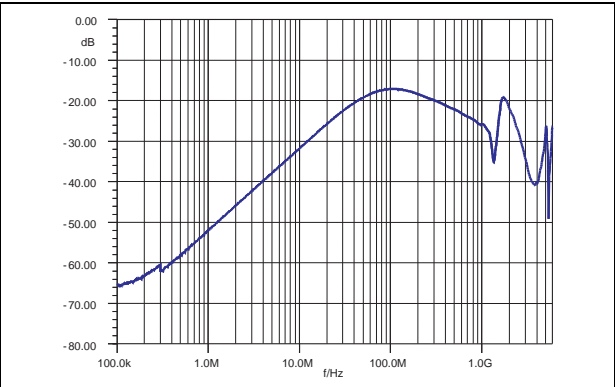


Figure 5. ESD response to IEC61000-4-2 (+15 kV air discharge) on one input V(in) and on one output (Vout)

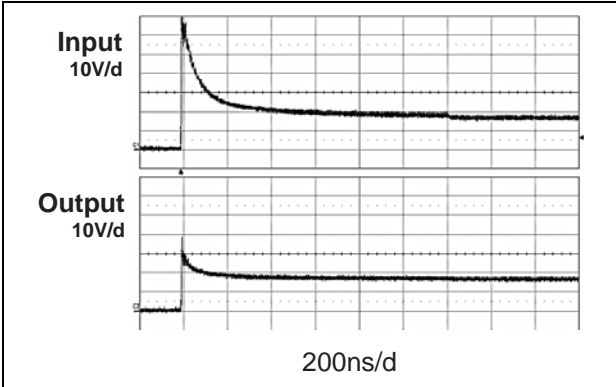


Figure 6. ESD response to IEC61000-4-2 (-15 kV air discharge) on one input V(in) and on one output (Vout)

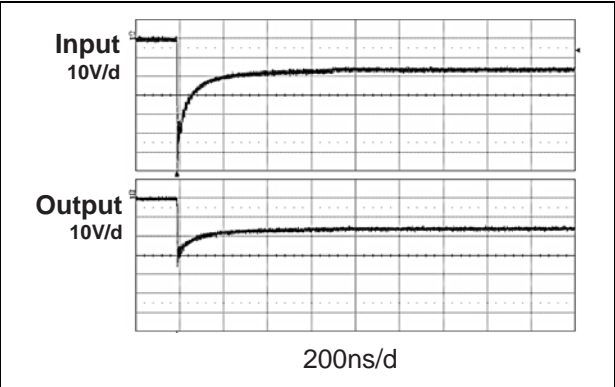
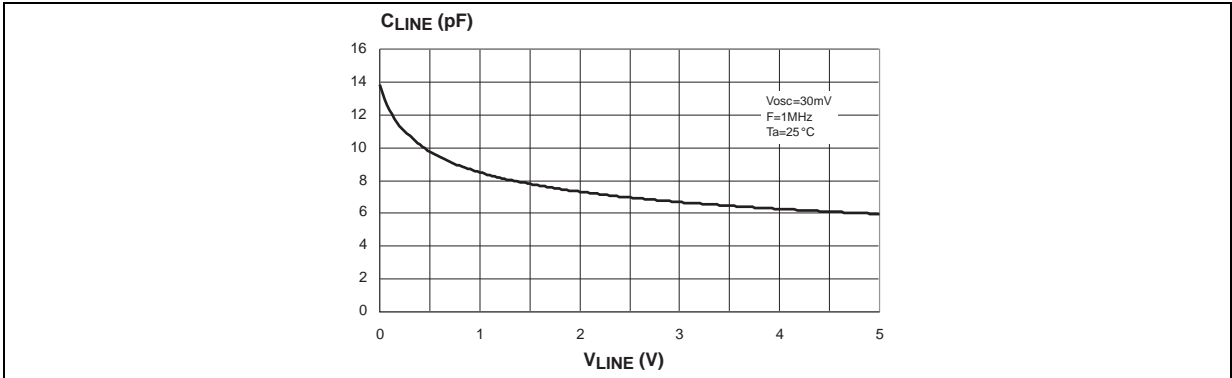


Figure 7. Junction capacitance versus reverse voltage applied (typical values)



2      Aplac model

Figure 8. Aplac model device structure

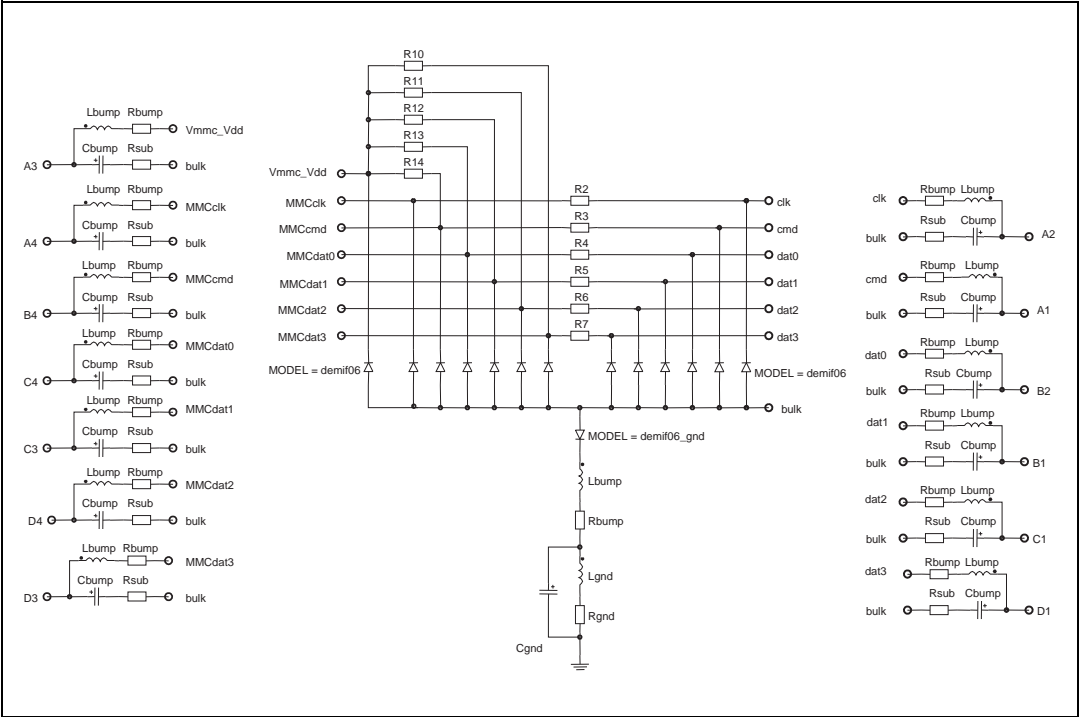


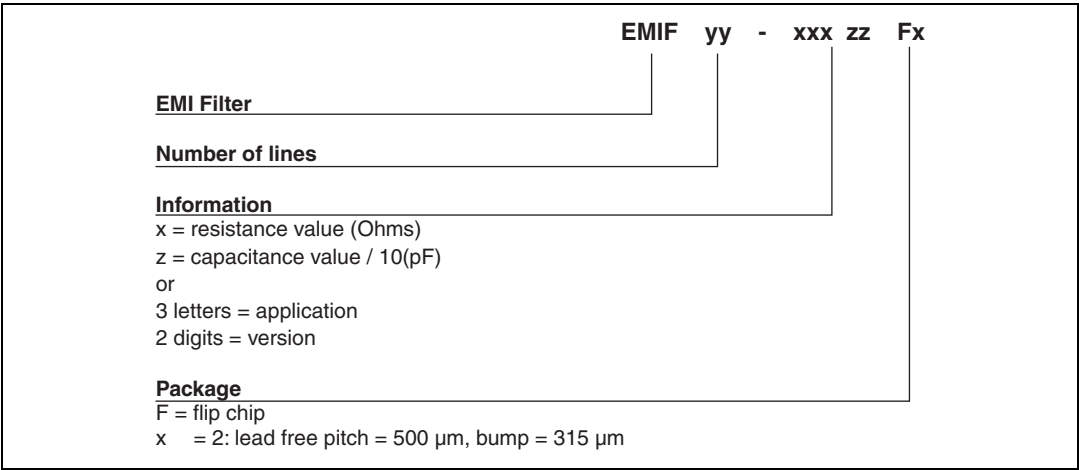
Figure 9. Aplac model parameters

Variables	Variables	demif06_gnd	demif06
R2 50	Cz 11pF	BV=14	BV=14
R3 50	Cz_gnd 45pF	IBV=1m	IBV=1m
R4 50	RS_gnd 480m	CJO=Cz_gnd	CJO=Cz
R5 50	Ls 950pH	M=0.31	M=0.31
R6 50	Rs 150m	RS=RS_gnd	RS=1
R7 50	Rbump 100m	VJ=0.6	VJ=0.6
R10 75k	Lbump 50pH	TT=100n	TT=100n
R11 75k	Cbump 0.15pF		
R12 75k	Lgnd 50pH		
R13 75k	Rgnd 100m		
R14 7k	Cgnd 0.15pF		
Rsub 100m			



### 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<sup>®</sup> packages, depending on their level of environmental compliance. ECOPACK<sup>®</sup> specifications, grade definitions and product status are available at: [www.st.com](http://www.st.com). ECOPACK<sup>®</sup> is an ST trademark.

Figure 11. Package dimensions

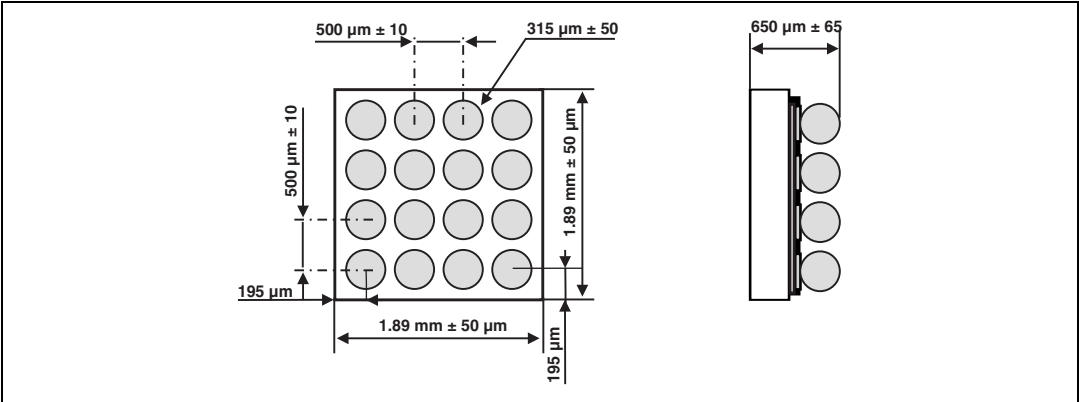


Figure 12. Footprint

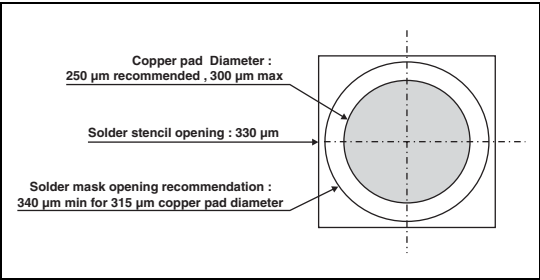


Figure 13. Marking

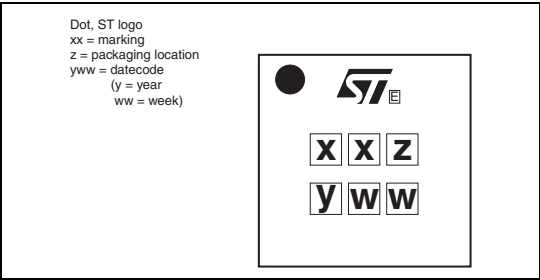
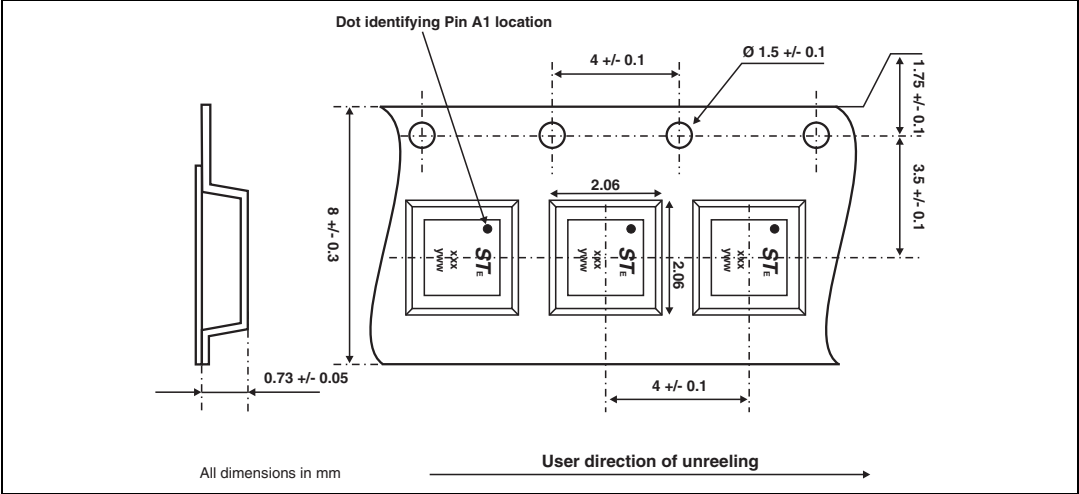


Figure 14. Flip chip tape and reel specification



## 5 Ordering information

**Table 4. Ordering information**

Order code	Marking	Package	Weight	Base qty	Delivery mode
EMIF06-HMC01F2	GH	Flip chip	5.3 mg	5000	Tape and reel 7"

*Note:* More informations are available in the application notes:  
AN1235: "Flip chip: Package description and recommendations for use"

## 6 Revision history

**Table 5. Document revision history**

Date	Revision	Changes
25-Jan-2005	1	Initial release.
27-Nov-2007	2	Updated ECOPACK statement. Updated <a href="#">Figure 10</a> , <a href="#">Figure 11</a> , <a href="#">Figure 12</a> , <a href="#">Figure 13</a> and <a href="#">Figure 14</a> . Reformatted to current standards.
17-Mar-2014	3	Updated die size in <a href="#">Figure 11</a> .

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