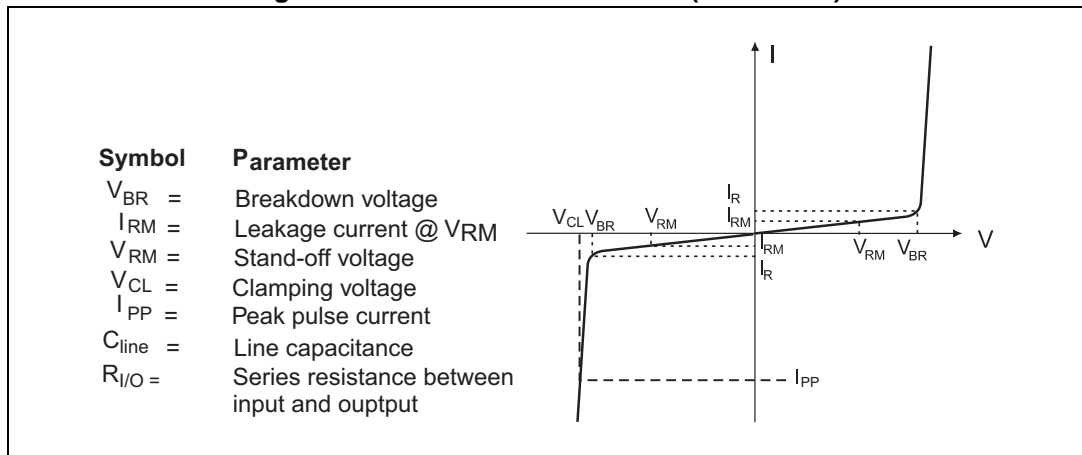


# 1 Characteristics

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

Symbol	Parameter	Value	Unit
$V_{PP}$	ESD discharge IEC 61000-4-2, level 4:		
	Air discharge	30	kV
	Contact discharge	20	
$T_j$	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 3. Electrical characteristics (definitions)**



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

Symbol	Test conditions	Min.	Typ.	Max.	Unit
$I_{RM}$	$V_{RM} = 5\text{ V}$ per line			300	nA
$V_{BR}$	$I_R = 1\text{ mA}$	6			V
$R_{I/O}$			1		k $\Omega$
$C_{line}$	$V_{line} = 0\text{ V}$ , $V_{osc} = 30\text{ mV}$ , $F = 1\text{ MHz}$		24	30	pF

Figure 4. Attenuation versus frequency

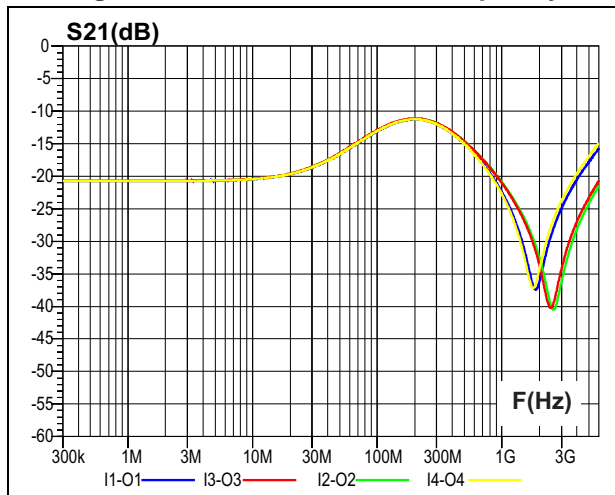


Figure 5. Analog crosstalk versus frequency

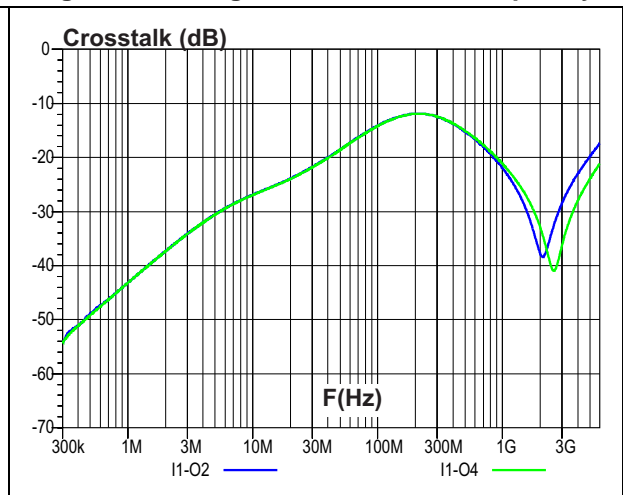


Figure 6. ESD response to IEC 61000-4-2 (+8 kV contact discharge)

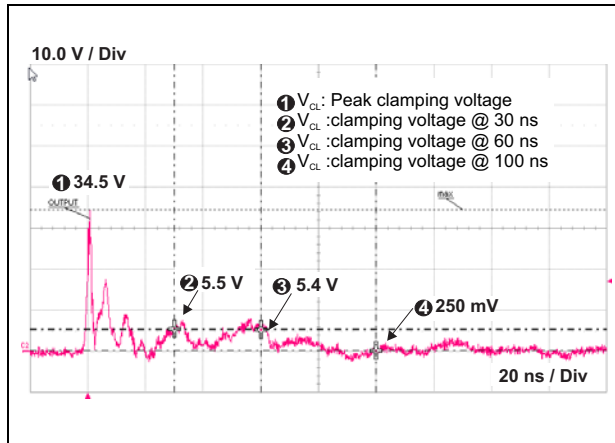


Figure 7. ESD response to IEC 61000-4-2 (-8 kV contact discharge)

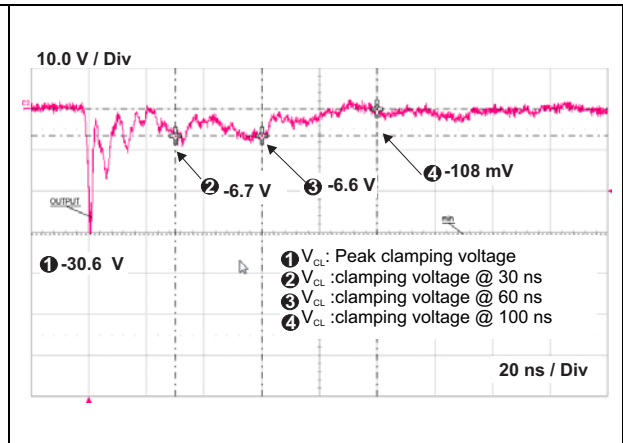


Figure 8. Digital crosstalk

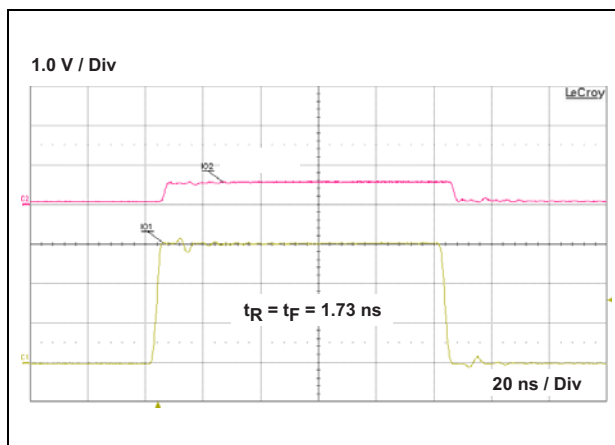


Figure 9. Clamping voltage versus peak pulse current (typical values)

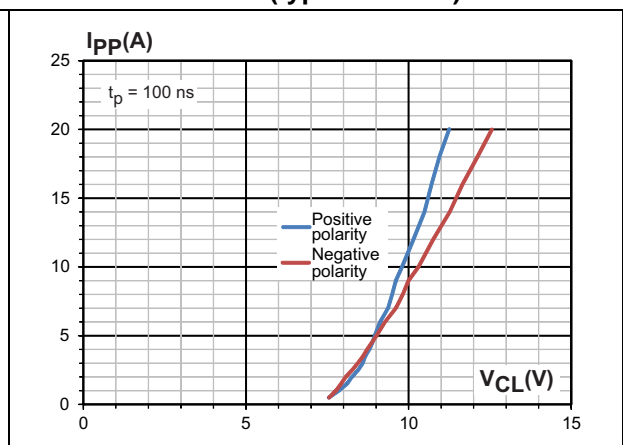
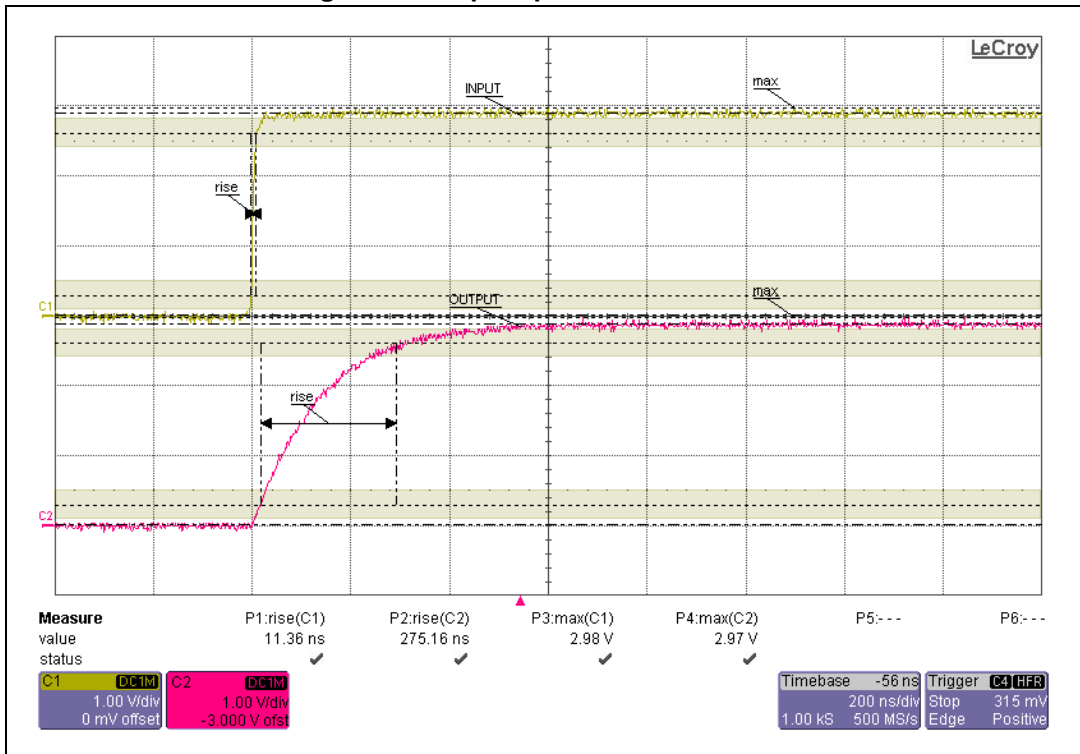


Figure 10. Step response measurement



## 2 Package information

- Epoxy meets UL94, V0
- Lead-free package

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](http://www.st.com). ECOPACK® is an ST trademark.

Figure 11. Flip-Chip package dimensions

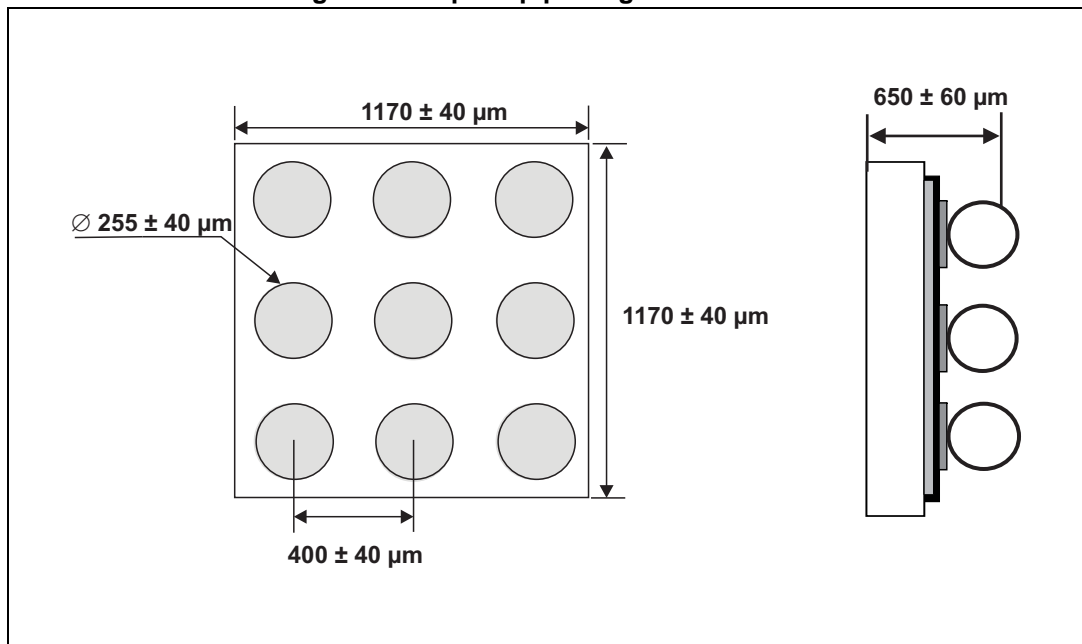


Figure 12. Footprint recommendations

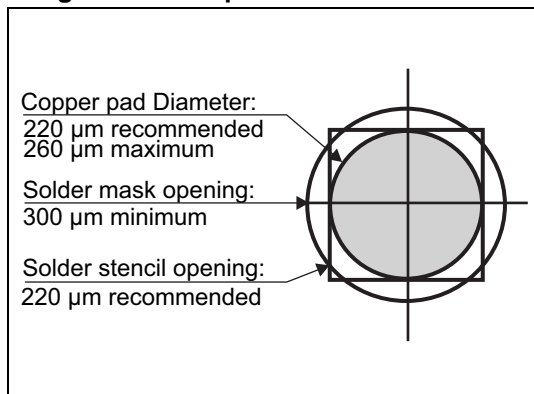


Figure 13. Marking

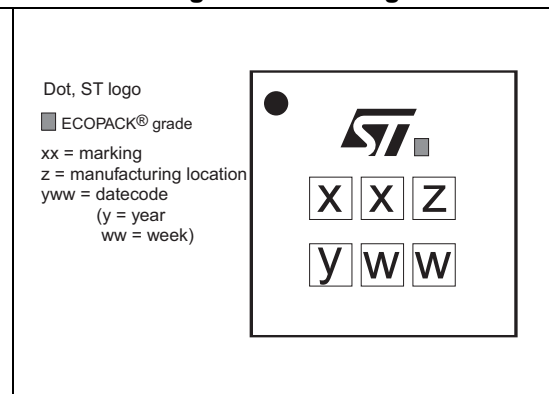
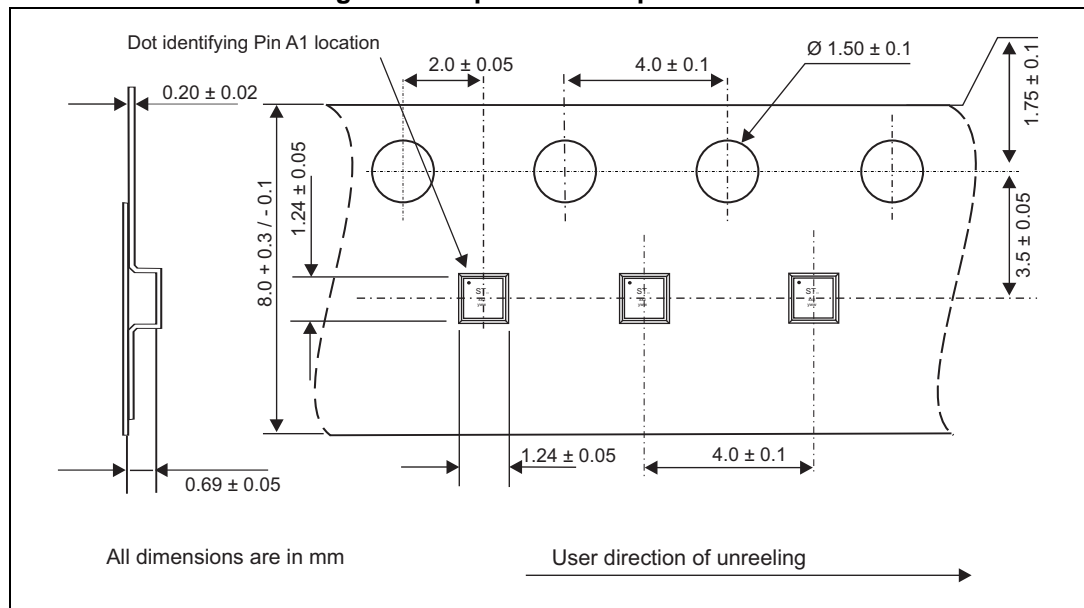


Figure 14. Tape and reel specification



Note: More information is available in the application notes:  
 AN2348, "IPAD™ 400 µm Flip Chip: package description and recommendations for use"  
 AN1751, "EMI filters: recommendations and measurements"

### 3 Ordering information

Figure 15. Ordering information scheme

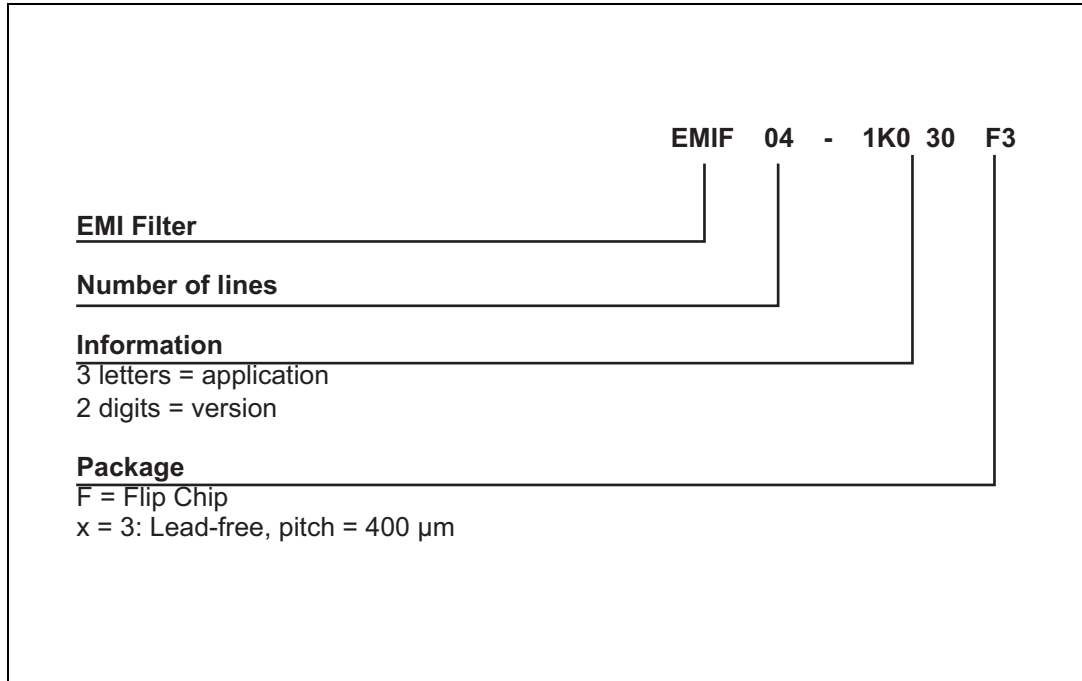


Table 3. Ordering information

Order code	Marking	Package	Weight	Base qty	Delivery mode
EMIF04-1K030F3	LC	Flip Chip	1.72 mg	5000	Tape and reel (7")

### 4 Revision history

Table 4. Document revision history

Date	Revision	Changes
05-Aug-2013	1	Initial release

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