

# 1 Characteristics

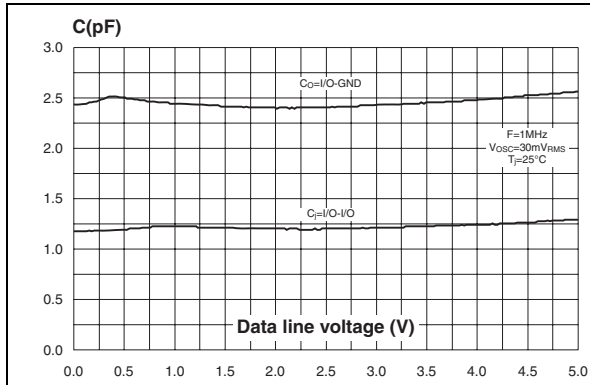
**Table 1. Absolute ratings**

Symbol	Parameter		Value	Unit
V <sub>PP</sub>	Peak pulse voltage	IEC 61000-4-2 air discharge	30	kV
		IEC 61000-4-2 contact discharge	15	
		MIL STD883G-Method 3015-7	25	
T <sub>stg</sub>	Storage temperature range		-55 to +150	°C
T <sub>j</sub>	Operating junction temperature range		-40 to +125	°C
T <sub>L</sub>	Lead solder temperature (10 seconds duration)		260	°C

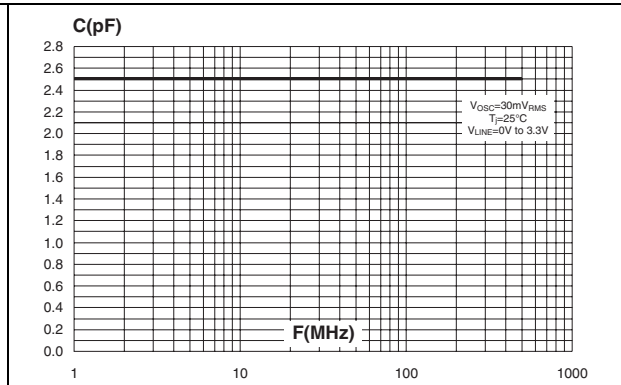
**Table 2. Electrical characteristics (T<sub>amb</sub> = 25 °C)**

Symbol	Parameter	Test conditions	Value			Unit
			Min.	Typ.	Max.	
V <sub>BR</sub>	I <sub>R</sub> = 1 mA		6			V
I <sub>RM</sub>	V <sub>RM</sub> = 3 V, V <sub>CC</sub> to GND				10	nA
	V <sub>RM</sub> = 1 V, V <sub>CC</sub> to GND				1	
V <sub>F</sub>	Forward voltage	I <sub>F</sub> = 10 mA			1.1	V
V <sub>CL</sub>	Clamping voltage	I <sub>PP</sub> = 1 A, 8/20 μs Any I/O pin to GND			12	V
		I <sub>PP</sub> = 5 A, 8/20 μs Any I/O pin to GND			17	V
C <sub>i/o-GND</sub>	Capacitance between I/O and GND	V <sub>R</sub> = 1.65 V		2.5	3.5	pF
ΔC <sub>i/o-GND</sub>				0.015		
C <sub>i/o-i/o</sub>	Capacitance between I/O	V <sub>R</sub> = 1.65 V		1.2	1.7	pF
ΔC <sub>i/o-i/o</sub>				0.04		

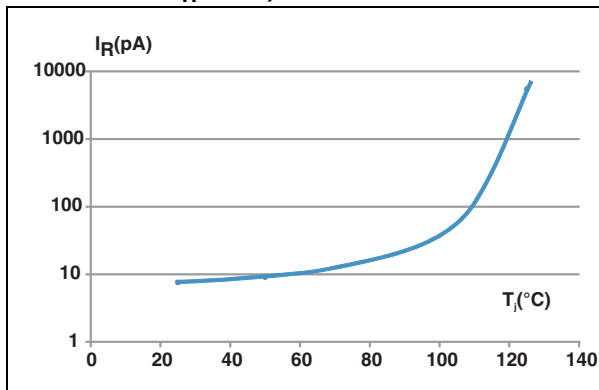
**Figure 2. Capacitance versus voltage (typical values)**



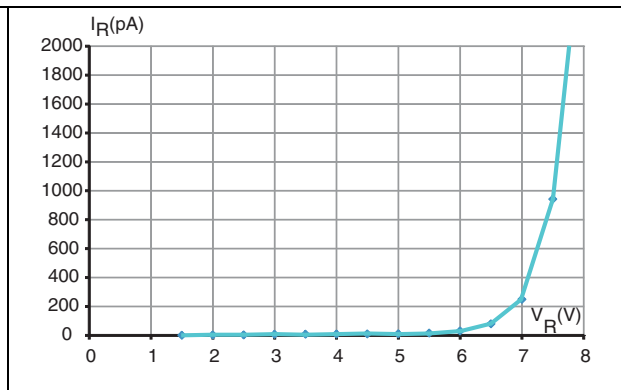
**Figure 3. Line capacitance versus frequency (typical values)**



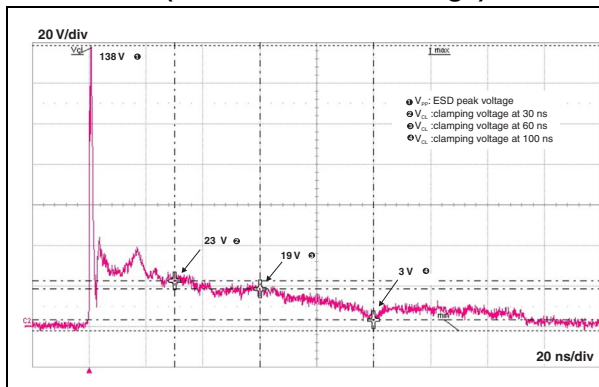
**Figure 4. Leakage current versus junction temperature (typical values,  $V_R = 1 V$ )**



**Figure 5. Leakage current versus reverse applied voltage (typical values)**



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



**Figure 7. ESD response to IEC 6100-4-2 (-8 kV contact discharge)**

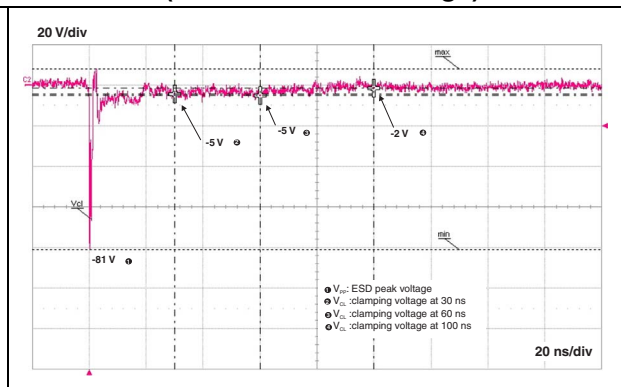


Figure 8. S21 attenuation measurement result

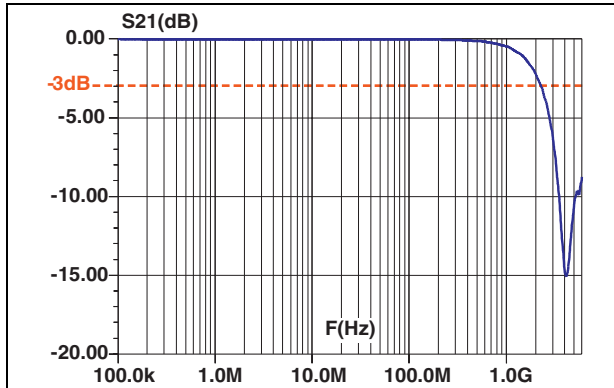
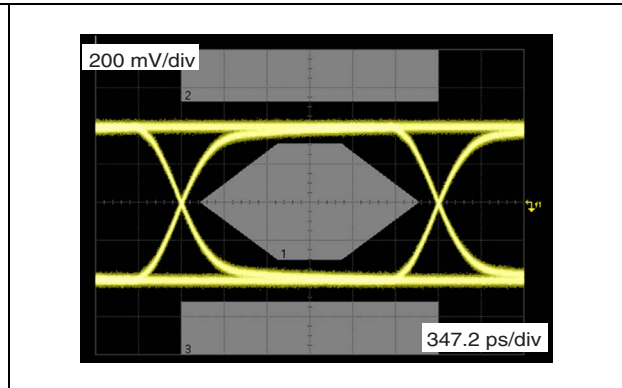
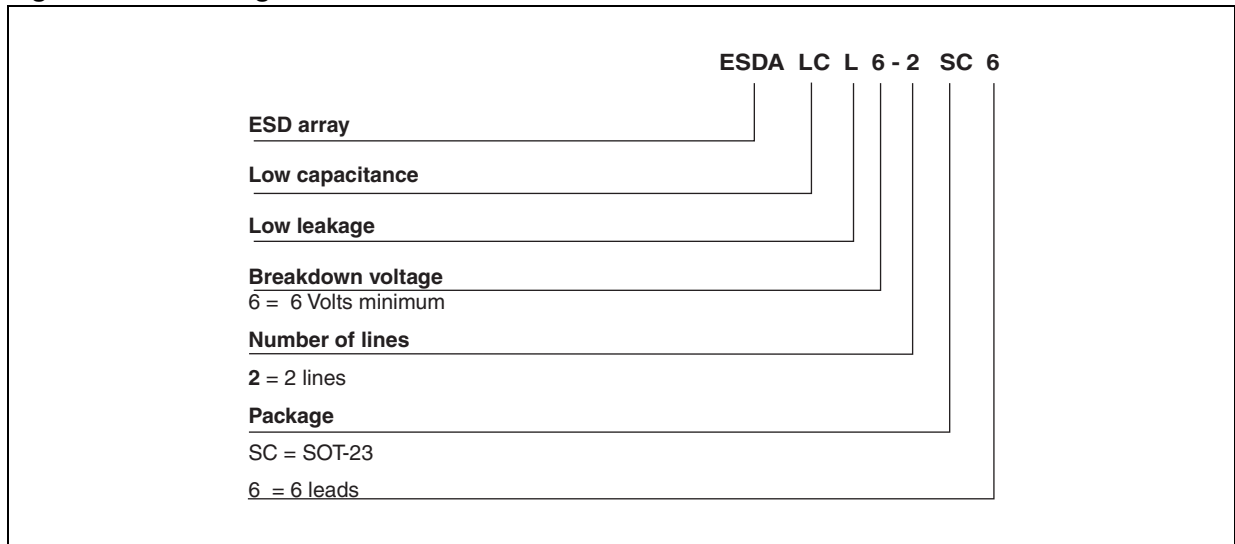


Figure 9. USB2.0 eye diagram



## 2 Ordering information scheme

Figure 10. Ordering information scheme



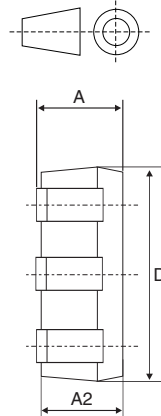
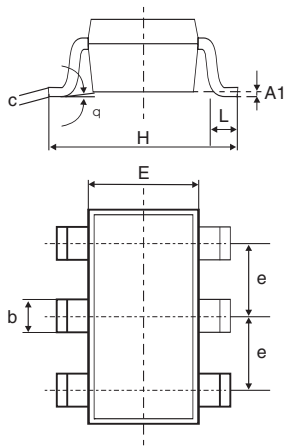
### 3 Package information

- Epoxy meets UL94, V0
- Lead-free packages

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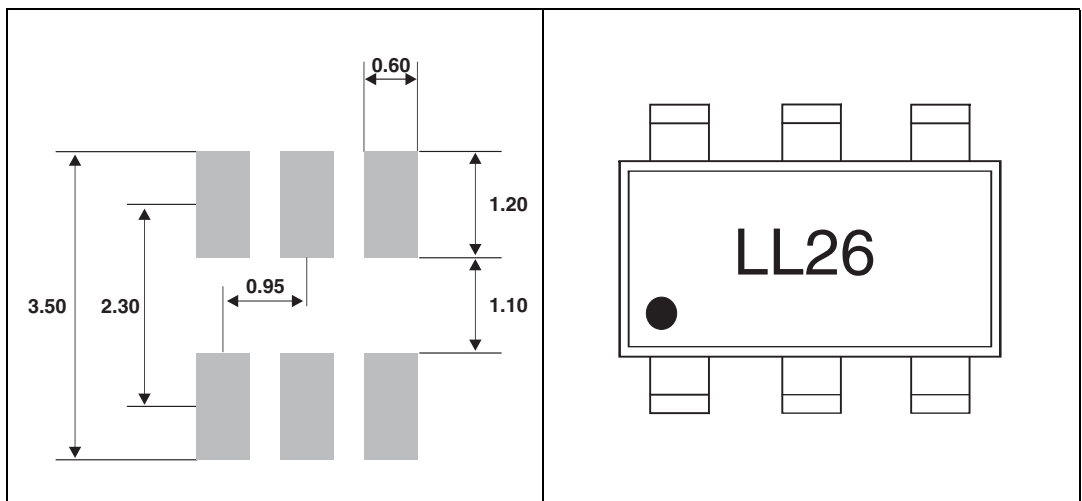
**Table 3. SOT23-6L dimensions**

Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	0.90		1.45	0.035		0.057
A1	0		0.15	0		0.006
A2	0.90		1.30	0.035		0.051
b	0.30		0.50	0.012		0.020
c	0.09		0.20	0.004		0.008
D	2.80		3.05	0.11		0.118
E	1.50		1.75	0.059		0.069
e		0.95			0.037	
H	2.60		3.00	0.102		0.118
L	0.30		0.60	0.012		0.024
θ	0°		10°	0°		10°



**Figure 11. SOT23-6L footprint dimensions in mm**

**Figure 12. SOT23-6L marking**



## 4 Ordering information

Table 4. Ordering information

Order code	Marking	Package	Weight	Base qty	Delivery mode
ESDALCL6-2SC6	LL26	SOT23-6L	16.7 mg	3000	Tape and reel

## 5 Revision history

Table 5. Document revision history

Date	Revision	Changes
31-Oct-2012	1	First issue.

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