1 Characteristics

Table 1. Absolute ratings (T_{amb} = 25 °C)

Symbol	Parameter		Value	Unit
V_{pp}	Peak pulse voltage	IEC 61000-4-5 contact discharge	30	kV
I_{pp}	Peak pulse current	8/20µs	16	A
T_{stg} T_j	Storage temperature range Operating junction temperature range		-55 to 150 -40 to 125	°C °C
T_L	Maximum temperature for soldering during 10s		260	°C

Table 2. Electrical characteristics (T_{amb} = 25 °C)

Order code	I_{RM} @ V_{RM} I/O to I/O		V_{BR} @ I_{BR} I/O to I/O		V_{CL} @ I_{PP} 8/20 µs I/O to I/O		C I/O to I/O	C I/O to I/O	ΔC I/O to I/O
	Max. µA	V	Min V	mA	Max. V	A	typ. (1) pF	max.(1) pF	typ.(2) pF
DSL03-010SC6	0.2	10	10.5	1	29	16	0.5	3	0.2
DSL03-022SC6	0.2	22	25	1	52	16	0.5	3	0.2
DSL03-024SC6	0.2	24	28	1	55	16	0.5	3	0.2

1. Test conditions: V_R = 2 V bias, V_{RMS} = 1 V, F = 1 MHz
2. Measured between 1 V and V_{RM}

Figure 2. Peak pulse power dissipation versus initial junction temperature (typical values, 8/20µs)

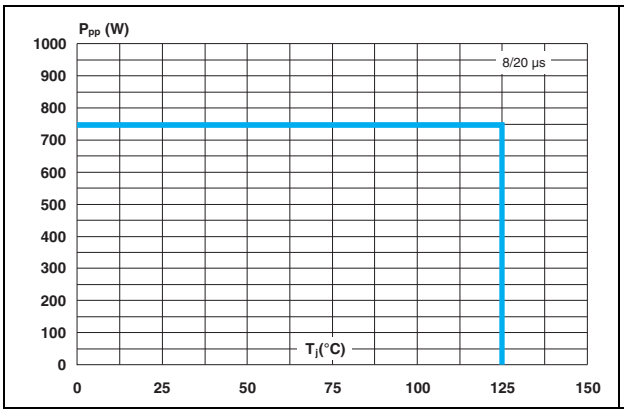


Figure 3. Leakage current versus junction temperature (typical values)

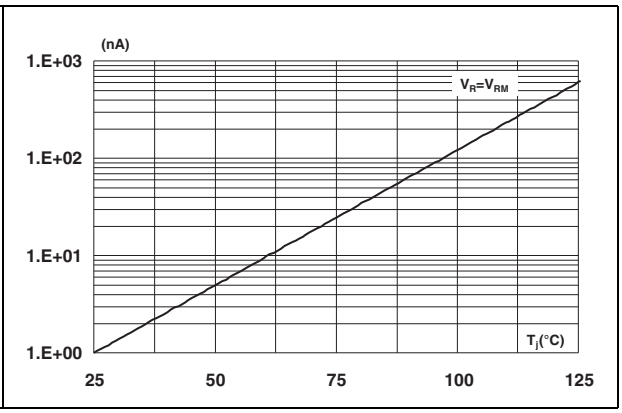


Figure 4. Junction capacitance versus reverse voltage applied (typical values)

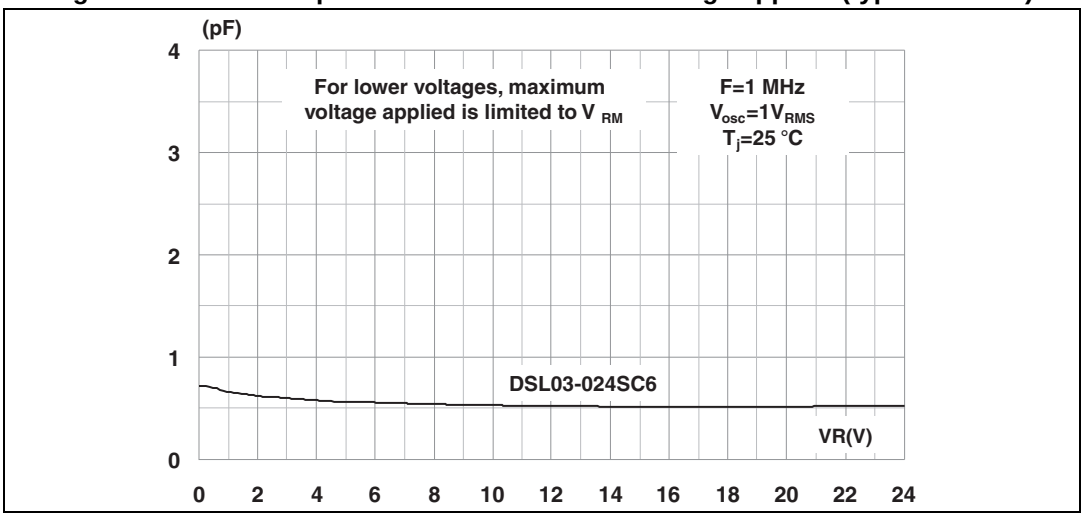


Figure 5. VDSL2 class AB modem connection

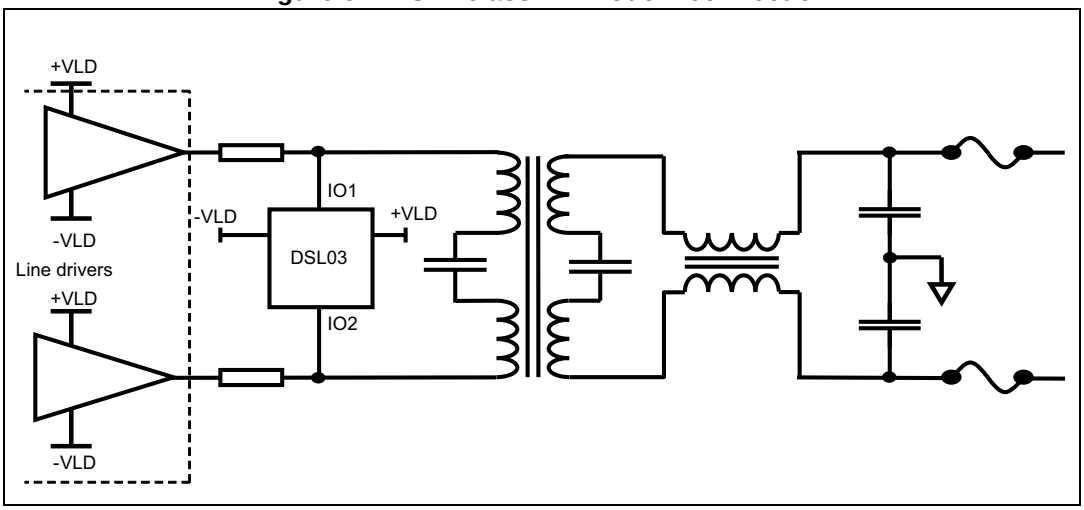
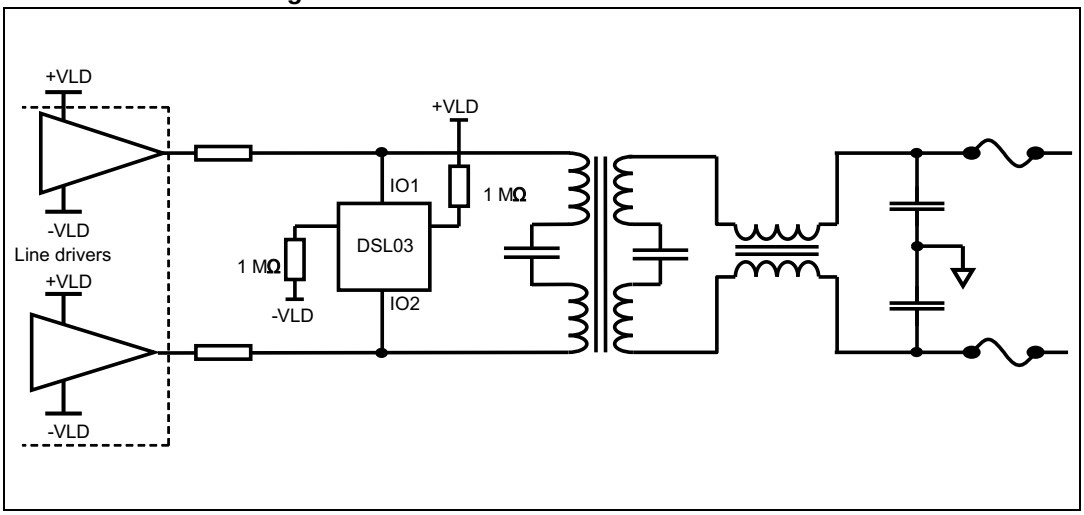


Figure 6. VDSL2 class H modem connection



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*. ECOPACK® is an ST trademark.

Figure 7. SOT23-6L dimension definitions

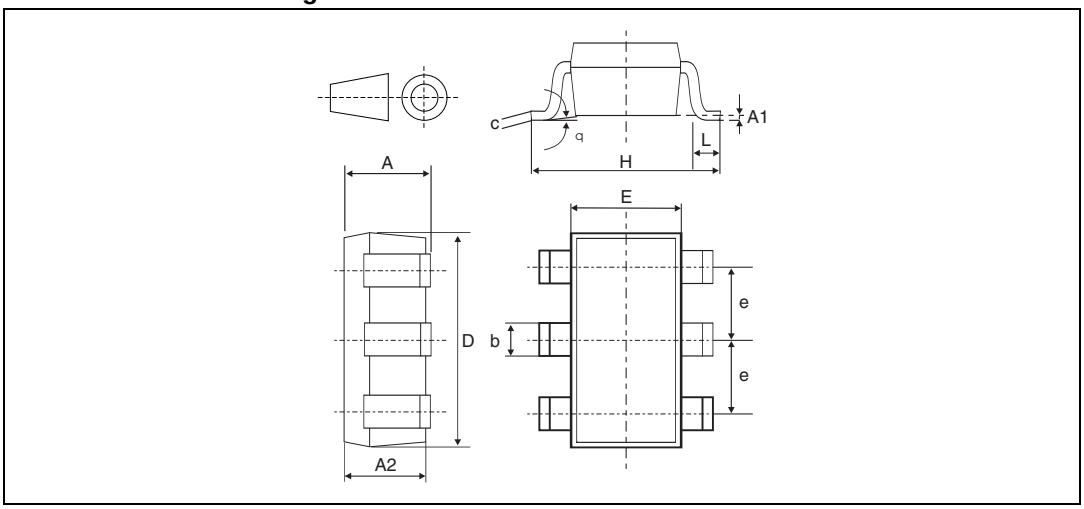


Table 3. SOT23-6L dimension values

Ref.	Dimensions					
	Millimeters			Inches		
	Min.		Max.	Min.		Max.
A	0.90		1.45	0.035		0.057
A1	0		0.10	0		0.004
A2	0.90		1.30	0.035		0.051
b	0.35		0.50	0.014		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	0.10		0.60	0.004		0.024
θ	0°		10°	0°		10°

Figure 8. Footprint recommendations dimensions in mm (inches)

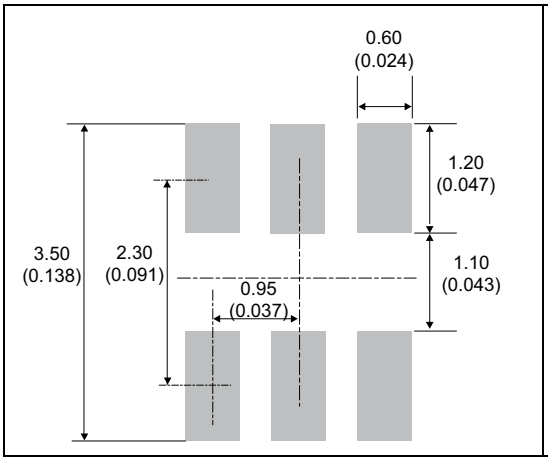
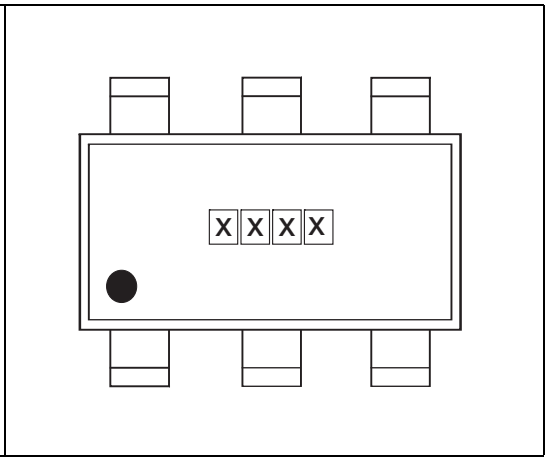


Figure 9. Marking layout



3 Ordering information

Figure 10. Ordering information scheme

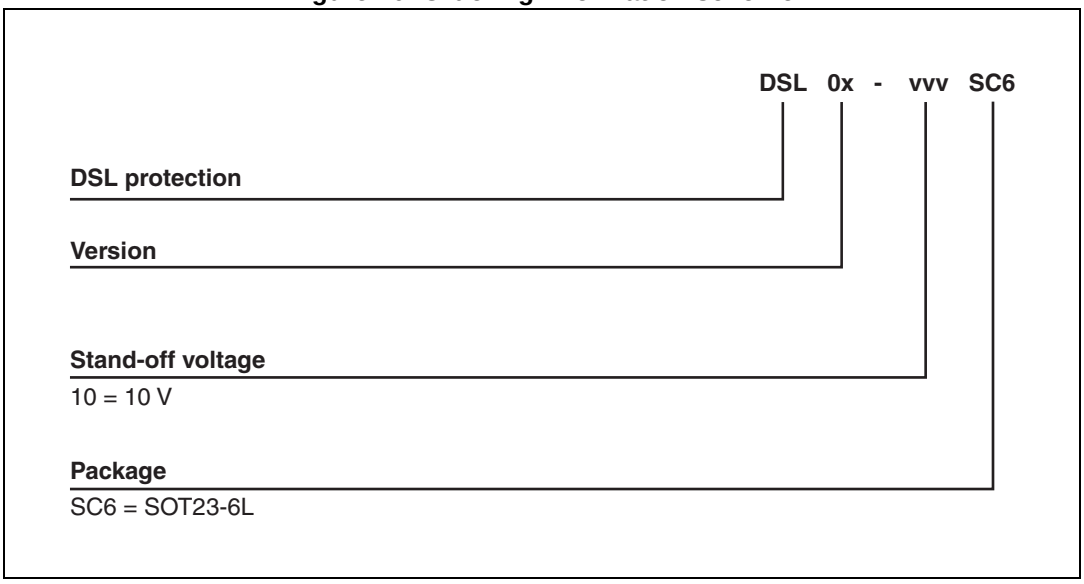


Table 4. Ordering information

Ordering code	Marking	Package	Weight	Base qty	Delivery mode
DSL03-010SC6	ST10	SOT23-6L	17.3 mg	3000	Tape and reel
DSL03-022SC6	ST22				
DSL03-024SC6	ST24				

4 Revision history

Table 5. Document revision history

Date	Revision	Changes
07-Feb-2014	1	Initial release
03-Feb-2015	2	Updated *Features* and *Description*. Added *Figure 5* and *Figure 6*.

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