

1 Characteristics

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

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

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

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 μ s I/O to I/O		C I/O to I/O	C I/O to I/O	ΔC I/O to I/O
	Max. μ A	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: $V_R = 2\text{ V}$ bias, $V_{RMS} = 1\text{ V}$, $F = 1\text{ MHz}$

2. Measured between 1 V and V_{RM}

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

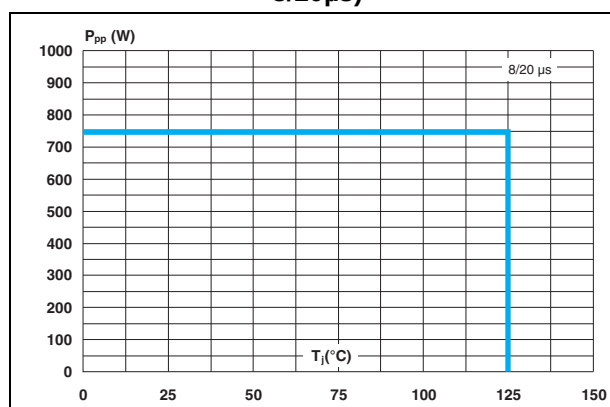


Figure 3. Leakage current versus junction temperature (typical values)

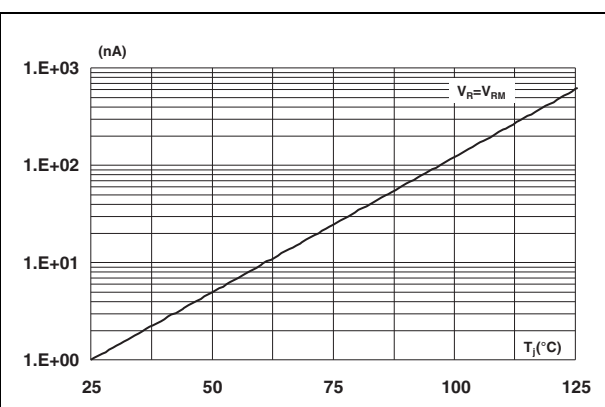


Figure 4. Junction capacitance versus reverse voltage applied (typical values)

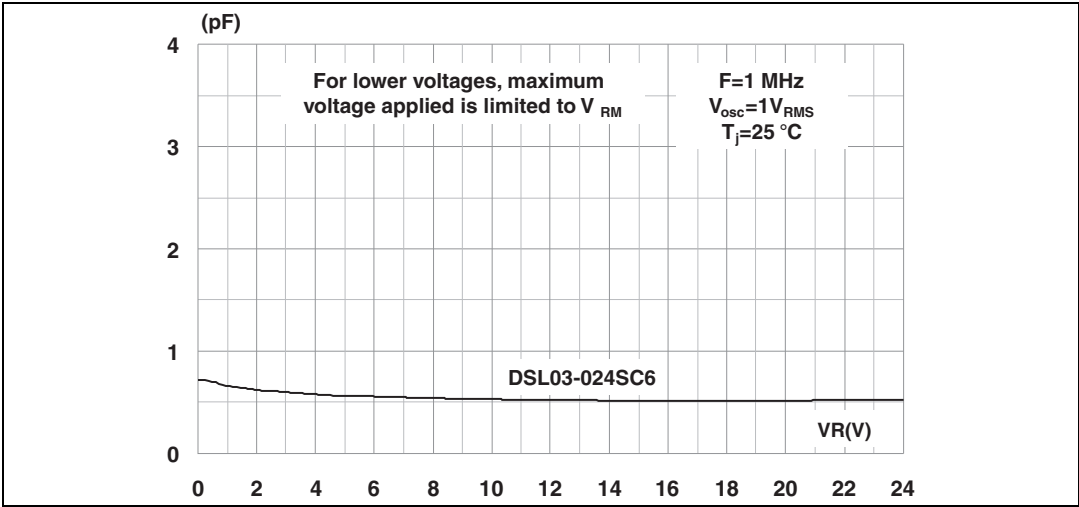


Figure 5. VDSL2 class AB modem connection

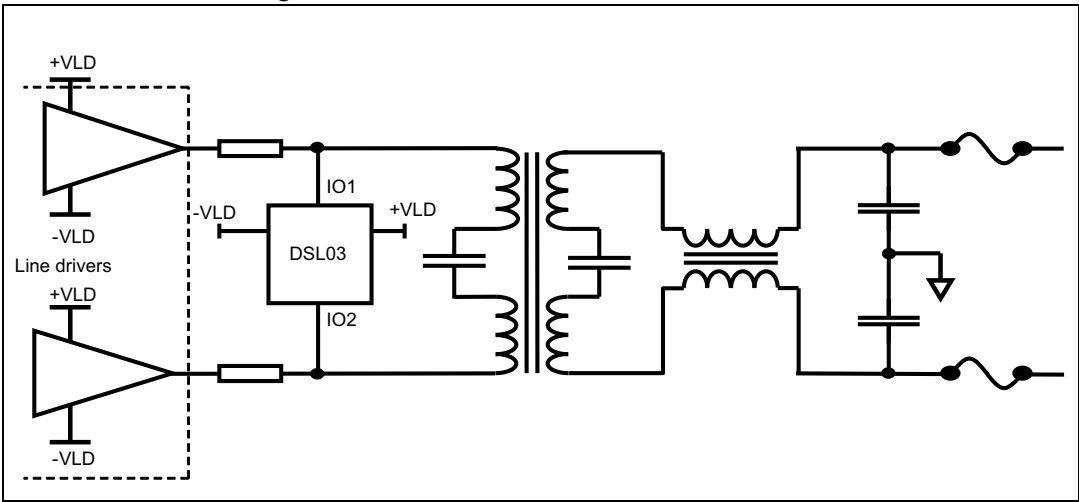
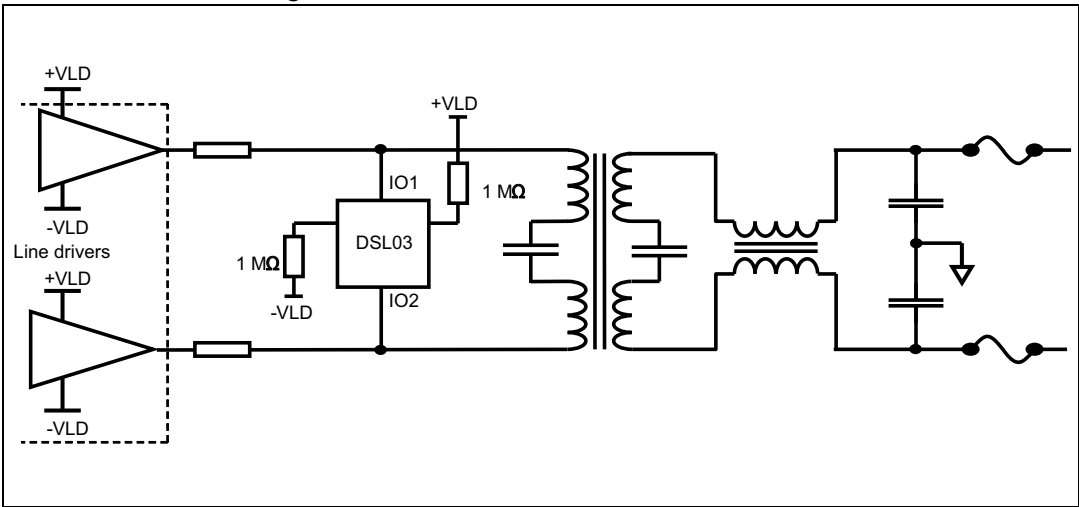


Figure 6. VDSL2 class H modem connection



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

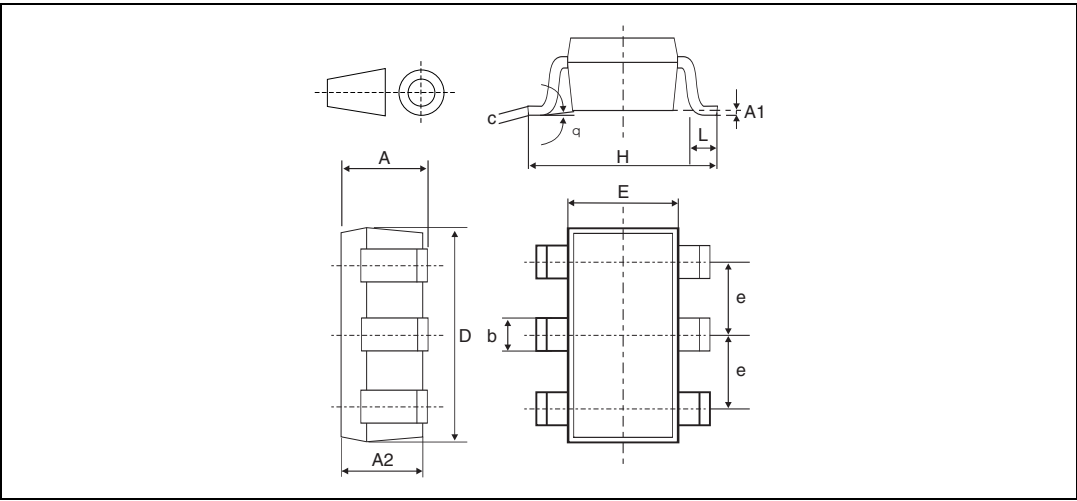


Table 3. SOT23-6L dimension values

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)

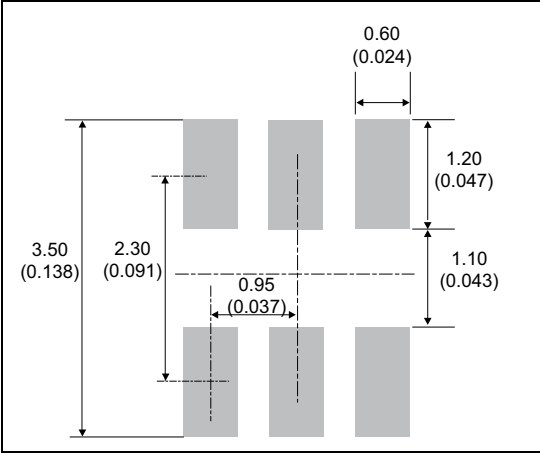
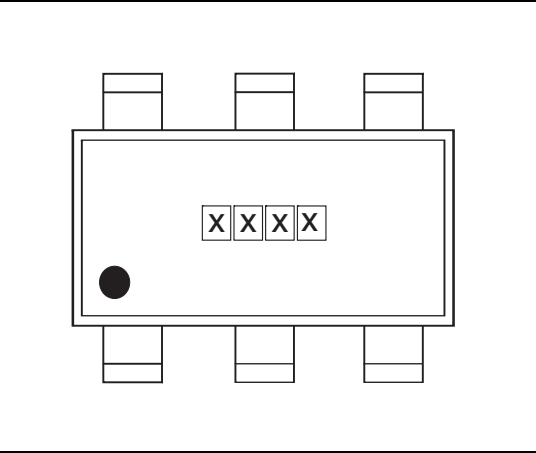


Figure 9. Marking layout



3 Ordering information

Figure 10. Ordering information scheme

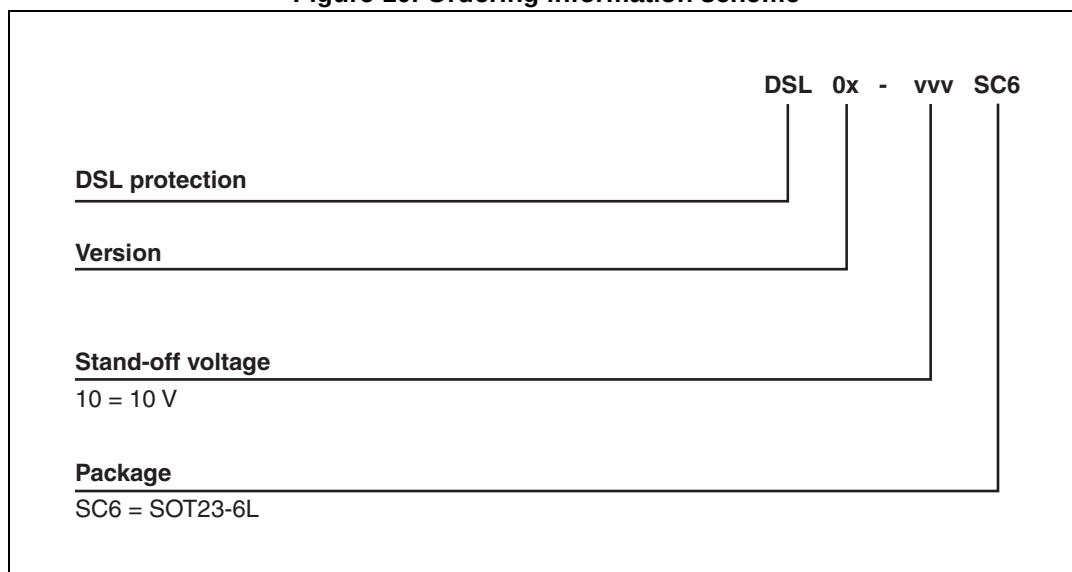


Table 4. Ordering information

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 .

IMPORTANT NOTICE – PLEASE READ CAREFULLY

STMicroelectronics NV and its subsidiaries ("ST") reserve the right to make changes, corrections, enhancements, modifications, and improvements to ST products and/or to this document at any time without notice. Purchasers should obtain the latest relevant information on ST products before placing orders. ST products are sold pursuant to ST's terms and conditions of sale in place at the time of order acknowledgement.

Purchasers are solely responsible for the choice, selection, and use of ST products and ST assumes no liability for application assistance or the design of Purchasers' products.

No license, express or implied, to any intellectual property right is granted by ST herein.

Resale of ST products with provisions different from the information set forth herein shall void any warranty granted by ST for such product.

ST and the ST logo are trademarks of ST. All other product or service names are the property of their respective owners.

Information in this document supersedes and replaces information previously supplied in any prior versions of this document.

© 2015 STMicroelectronics – All rights reserved

