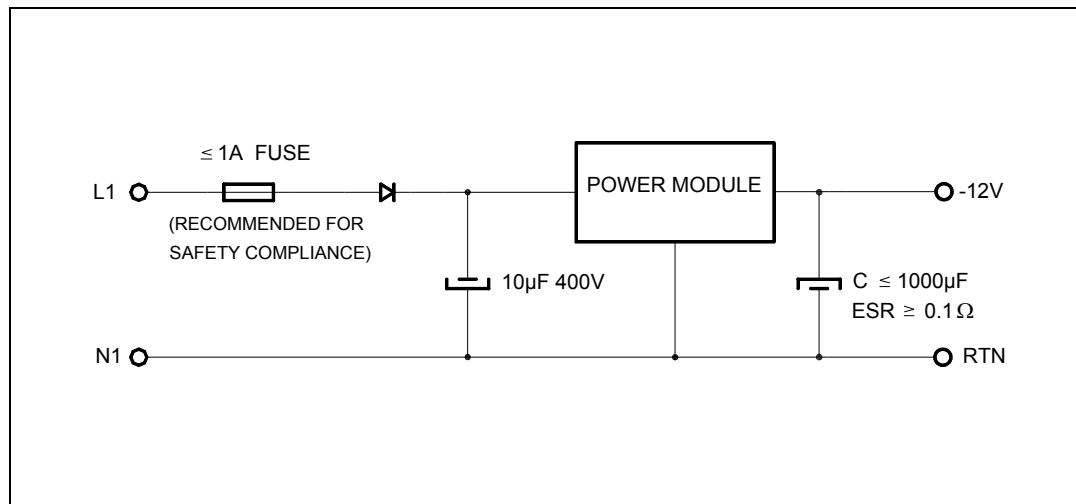


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1 Application diagram

Figure 1. Application diagram
 (For through hole version C must be 100 μ F minimum, for Comb version C can be avoided)



2 Electrical characteristics

Table 2. Electrical characteristics ($T_A = 25^\circ\text{C}$, unless otherwise specified.)

Symbol	Parameter	Test condition	Min.	Typ.	Max.	Unit
V_i	Input voltage		100		370	V_{dc}
V_{o1}	Output voltage	$V_i = 100$ to $370 V_{dc}$	-12.6	-12	-11.4	V
I_{o2}	Output current	$V_i = 100$ to $370 V_{dc}$	0.35			A
V_{or}	Output ripple	$V_i = 100$ to $370 V_{dc}$			5%	mVpp
I_{osc}	Output short circuit current	$V_i = 100$ to $370 V_{dc}$	Hiccup Mode			A
n	Efficiency	$V_i = 100$ to $370 V_{dc}$ $I_o = 0.35$ A		80		%
$P_{stand\ by}$	Power losses in no load condition	$V_i = 320 V_{dc}$ $I_o = 0$ mA			0.3	W
I_{ir}	Inrush input current	$V_i = 320 V_{dc}$		30		A
T_{op}	Operating ambient temperature		-10		85	$^\circ\text{C}$
T_{stg}	Storage temperature range		-20		90	$^\circ\text{C}$

- Agency approvals
The safety and EMI compliance has to be assured by the user.

3 Mechanical dimensions

In order to meet environmental requirements, ST offers these devices in ECOPACK® packages. These packages have a Lead-free second level interconnect. The category of second level interconnect is marked on the package and on the inner box label, in compliance with JEDEC Standard JESD97. The maximum ratings related to soldering conditions are also marked on the inner box label. ECOPACK is an ST trademark. ECOPACK specifications are available at: www.st.com

Figure 2. SPDC400BT mechanical data (dimensions in mm)

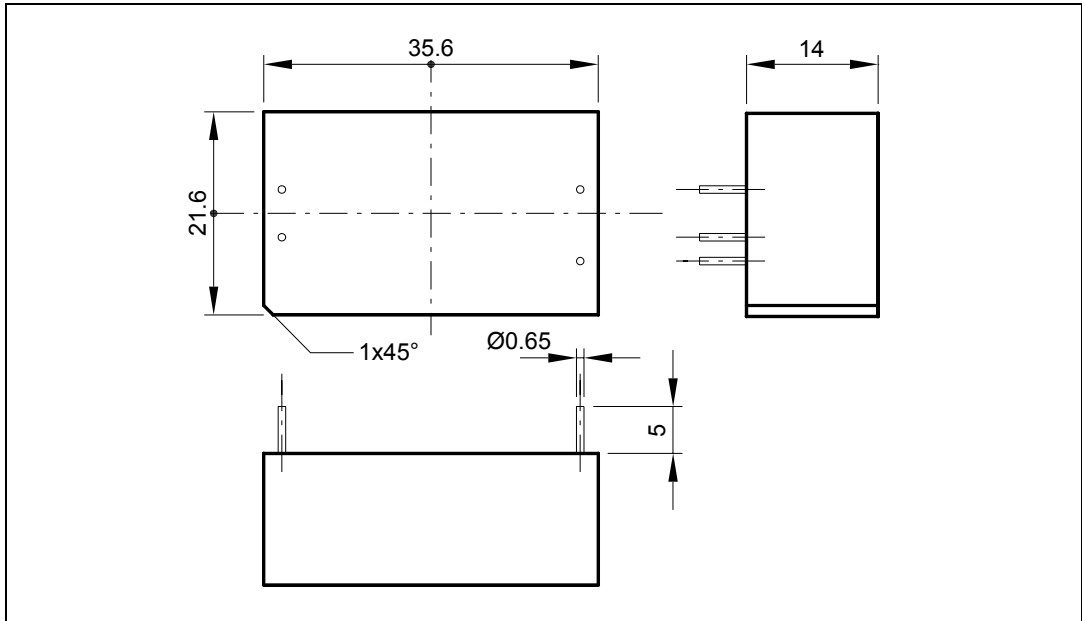


Figure 3. SPDC400FT mechanical data (dimensions in mm)

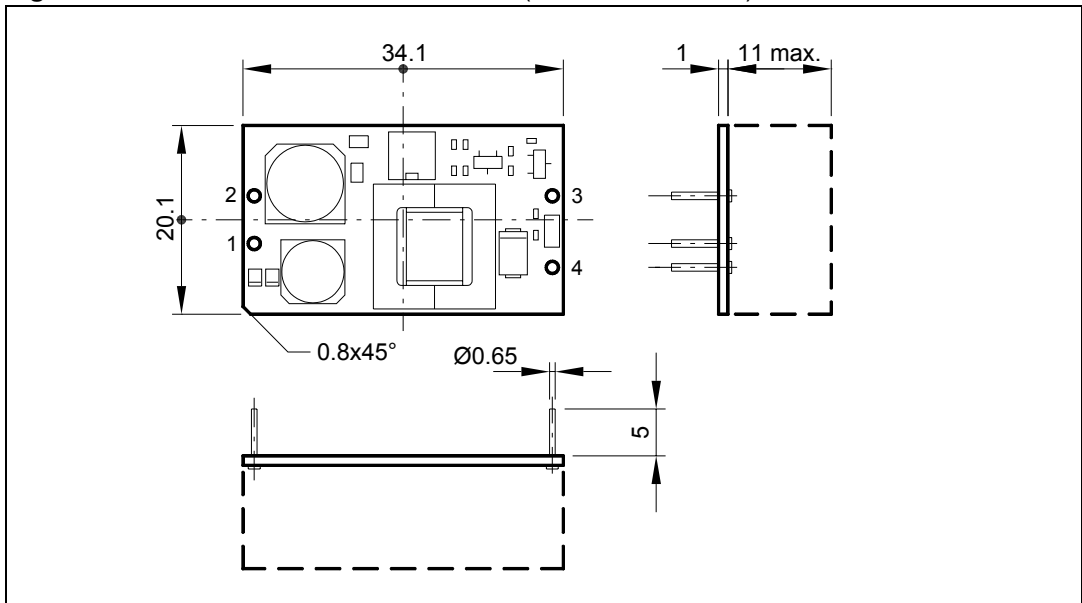


Figure 4. SPDC400FC mechanical data side view (dimensions in mm)

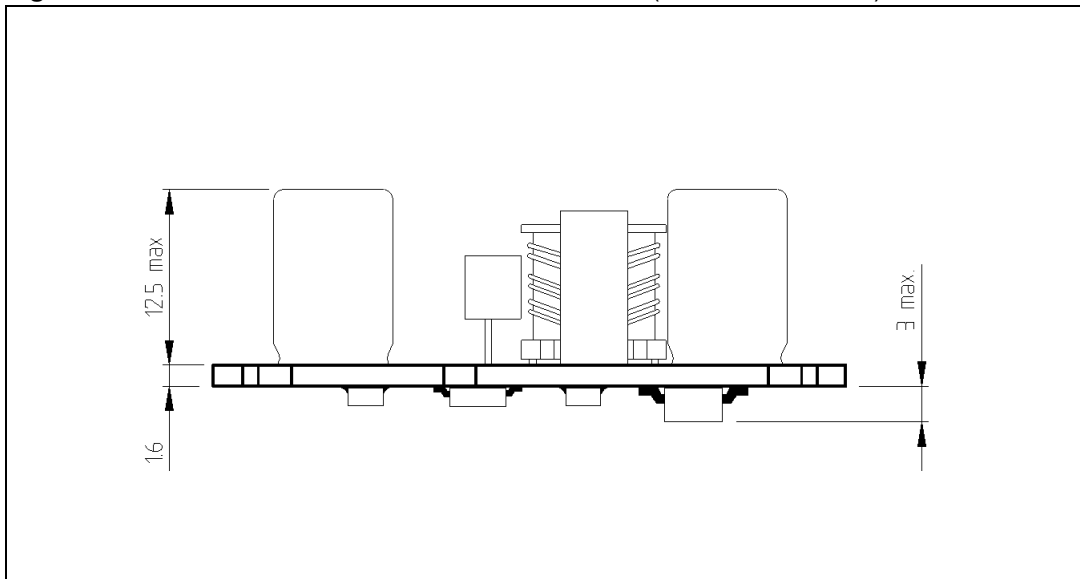
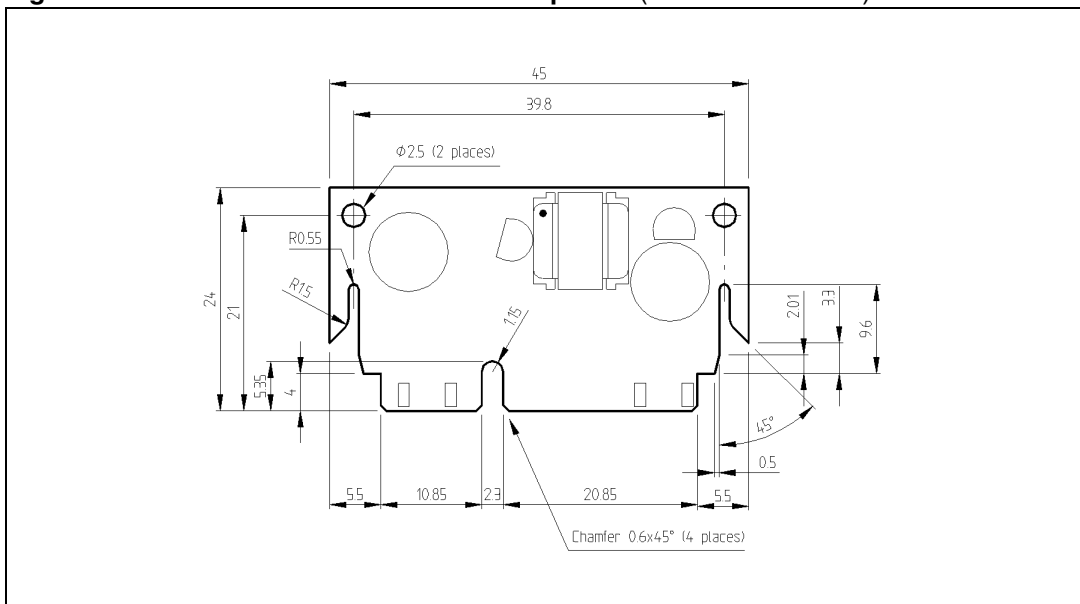


Figure 5. SPDC400FC mechanical data top view (dimensions in mm)



4 Connection diagram

Table 3. Pin description

Pin	Function	Description
1	L1	DC input voltage
2	N1	DC input voltage
3	-12V	Output voltage
4	RTN	Output voltage return

Figure 6. SPDC400BT and SPDC400FT connection diagram

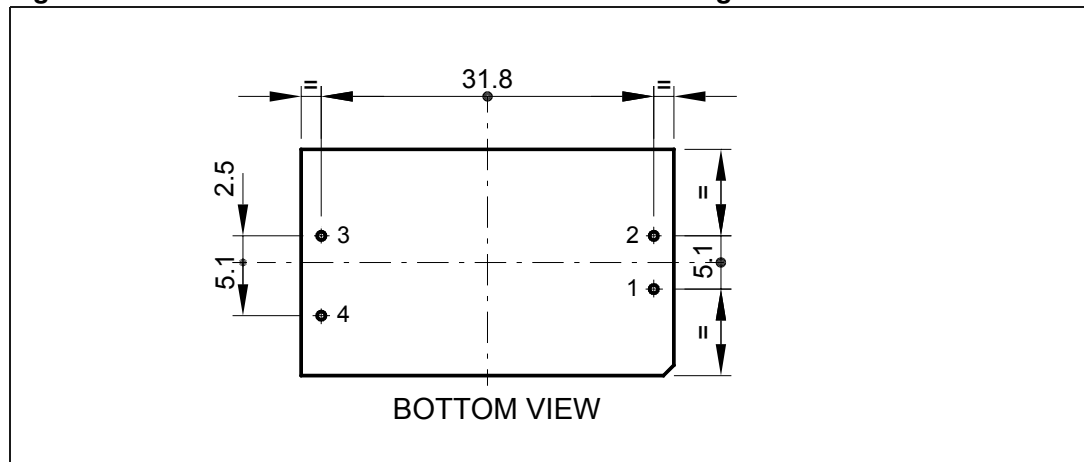
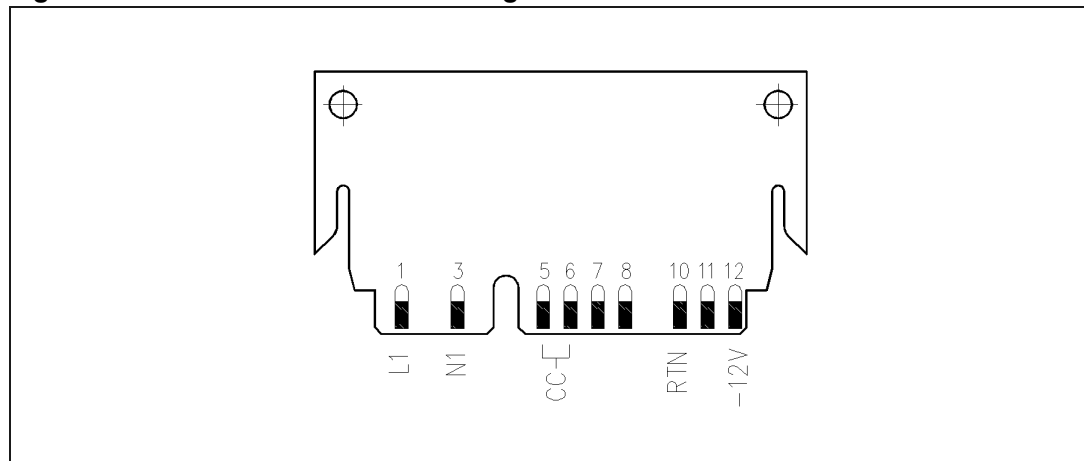


Figure 7. SPDC400FC connection diagram



5 Ordering information scheme

Table 4. Ordering information scheme

	SPDC	400	X	Y	12	Z	0.35
DC-DC converter							
Max VDC input							
F:Open Frame	Package						
B:Encapsulated							
C: Comb	Connection						
T:Through Hole							
Typ VDC Output							
P:Plus	Output voltage polarity						
M:Minus							
Typ IDC Output							

6 Revision history

Table 5. Document revision history

Date	Revision	Changes
11-Oct-2007	1	First release

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