



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

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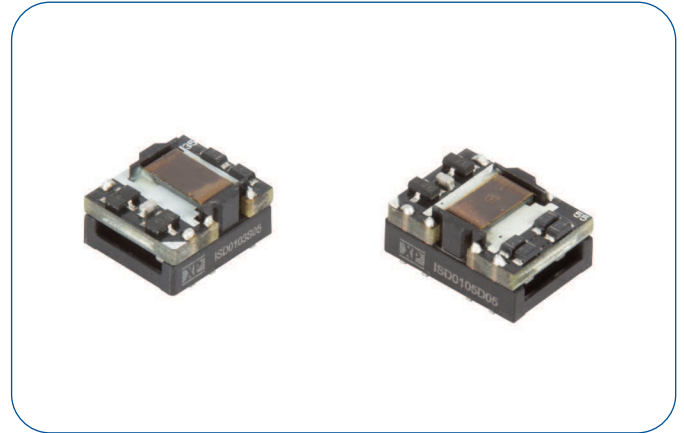
Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



1 Watt

- Single & Dual Output
- Ultra Compact SMD Package
- 4200 VDC Isolation
- 250 VAC/400 VDC Working Voltage
- Operating Temperature -40 °C to +105 °C
- Full Load at +100 °C
- Tape & Reel Package Available
- 3 Year Warranty



Dimensions:

ISD01xxS: 0.5 x 0.44 x 0.27" (12.7 x 11.2 x 6.85 mm)
 ISD01xxD: 0.6 x 0.44 x 0.27" (15.24 x 11.2 x 6.85 mm)

Models & Ratings

Input voltage	Output voltage	Output current	Input current ^(1,2)		Maximum capacitive load ⁽³⁾	Efficiency	Model number ⁽³⁾
			No load	Full load			
2.97-3.63 V	3.3 V	303 mA	50 mA	415 mA	220 µF	73%	ISD0103S3V3
	5.0 V	200 mA		405 mA	220 µF	75%	ISD0103S05
	±3.3 V	±151 mA		405 mA	±100 µF	75%	ISD0103D3V3
	±5.0 V	±100 mA		390 mA	±100 µF	78%	ISD0103D05
4.5-5.5 V	3.3 V	303 mA	40 mA	275 mA	220 µF	73%	ISD0105S3V3
	5.0 V	200 mA		265 mA	220 µF	76%	ISD0105S05
	±3.3 V	±151 mA		270 mA	±100 µF	75%	ISD0105D3V3
	±5.0 V	±100 mA		260 mA	±100 µF	78%	ISD0105D05

Notes

1. Input currents measured at nominal input voltage.
 2. Maximum capacitive load is per output.

3. For optional tape & reel package version, add suffix '-TR' e.g. ISD0105S05-TR.

Input

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Input Voltage Range	2.97		3.63	VDC	3V3 nominal
	4.50		5.50		5 V nominal
Input Filter	Internal Capacitor				
Input Surge			5	VDC for 1 s	3V3 nominal
			9		5 V nominal
Input Reflected Ripple Current			20	mA pk-pk	

Output

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Output Voltage	3.3		5	VDC	See Models and Ratings table
Initial Set Accuracy		±3.0		%	At 70% load
Output Voltage Balance			±1.0	%	For dual output with balanced loads
Minimum Load	10			%	Minimum load required
Line Regulation			±1.2	%/1%	Output changes by max of 1.2% for each 1% change in input voltage
Load Regulation		10	15/12	%	3.3 V output/5 V output
Ripple & Noise			150/±120	mV pk-pk	Single/Dual Output. 20 MHz bandwidth. Measured using 10 µF electrolytic capacitor in parallel with 0.1 µF ceramic capacitor
Short Circuit Protection					0.5 s max with auto recovery
Maximum Capacitive Load					See Models and Ratings table
Temperature Coefficient			0.03	%/°C	

General

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Efficiency		76		%	See Models and Ratings table
Isolation: Input to Output	4200			VDC	3 s. Working voltage 250 VAC/400 VDC
Isolation Resistance	10 ⁹			Ω	At 1000 VDC
Isolation Capacitance		25		pF	
Switching Frequency	50		80	kHz	
Power Density			16.8	W/in ³	
Mean Time Between Failure	7.2			MHrs	MIL-HDBK-217F, +25 °C GB
Weight		0.003 (1.52) 0.004 (1.80)		lb (g)	For single output For dual output
Moisture Sensitivity Level	Level 1				IPC/JEDEC J-STD-020D.1

Environmental

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Operating Temperature	-40		+105	°C	See Derating Curve.
Storage Temperature	-55		+125	°C	
Humidity			95	%RH	Non-condensing
Cooling					Natural convection
Case Flammability	UL 94V-0 Rated				Non conductive black plastic
Lead-Free Reflow Solder Process					IPC/JEDEC J-STD-020D.1

EMC: Emissions

Phenomenon	Standard	Test Level	Notes & Conditions
Conducted	EN55032	Class B	See application notes
Radiated	EN55032	Class B	See application notes

EMC: Immunity

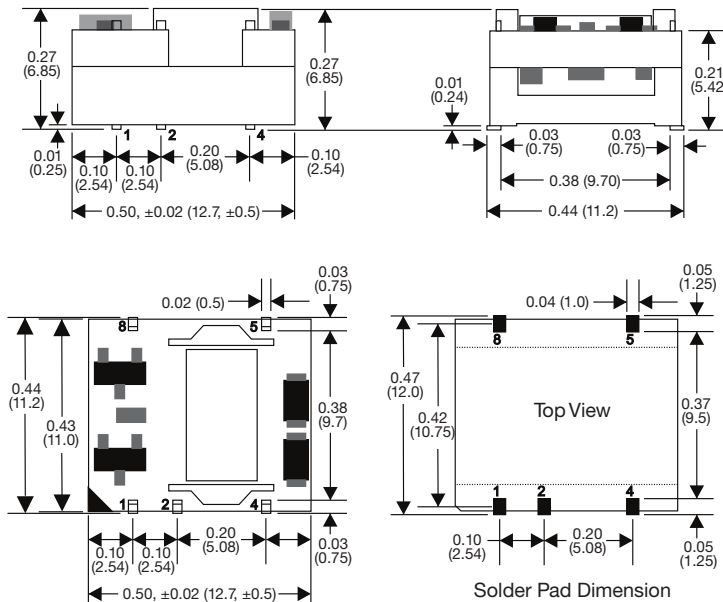
Phenomenon	Standard	Test Level	Criteria	Notes & Conditions
ESD Immunity	EN61000-4-2	±8 kV	A	Air Discharge
Radiated Immunity	EN61000-4-3	3 Vrms	A	
EFT/Burst	EN61000-4-4	2 kV	A	External components required, see application notes
Surge	EN61000-4-5	2 kV	A	External components required, see application notes
Conducted Immunity	EN61000-4-6	10 V rms	A	
Magnetic Fields	EN61000-4-8	100 A/m	A	

Safety Approvals

Safety Agency	Safety Standard	Notes & Conditions
UL	UL60950-1, UL62368-1	
CSA	CAN/CSA C22.2 No.60950-1	

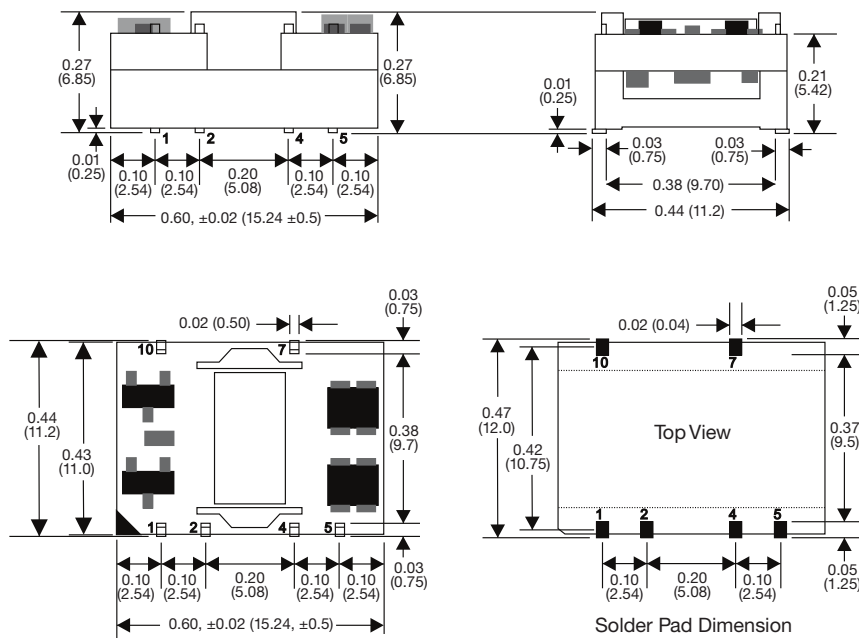
Mechanical Details

Single Output



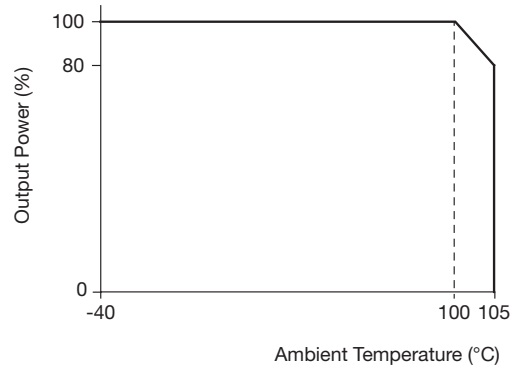
Pin Connections	
Pin	Single
1	-Vin
2	+Vin
4	-Vout
5	+Vout
8	N/C

Dual Output

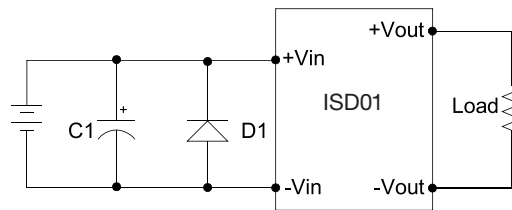


Pin Connections	
Pin	Dual
1	-Vin
2	+Vin
4	Common
5	-Vout
7	+Vout
10	N/C

Application Notes



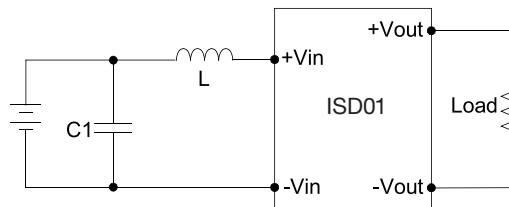
EFT & Surge Filter



C1	D1
330 μ F/50 V	SMDJ9.0A

D1: Transient Voltage Suppression Diode

EMI Filter



C1	L
1206,22 μ F	6.8 μ H

Notes

1. All dimensions are in inches (mm)
2. Weight: 0.003 lbs (1.52 g) approx
0.004 lbs (1.80 g) approx

3. Tolerance: X.XX \pm 0.01 (X.X \pm 0.25)
4. Pin Tolerance: \pm 0.002 (\pm 0.05)