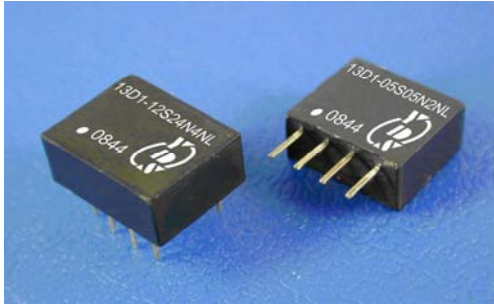




3000Vdc Single Output 1 Watt Dc-Dc Converter



FEATURES:

- 4 PIN SIP and 8 PIN DIL Package.
- High insulation 3000Vdc.
- Unregulated Output Types.
- Recognized By UL 60950-1
- Operating Temperature:-40°C TO +85°C
- MTBF:>3,500,000 hrs



Specifications typical at TA=25°C, nominal input voltage and rated output current unless otherwise specified

Part Number	Output Voltage	Output Current	Efficiency	Package Style
	Vdc	mA	%TYP	"X"
13D1-XXS03NXNL	3.3	303	70	1/2/3/4
13D1-XXS05NXNL	5	200	70	1/2/3/4
13D1-XXS09NXNL	9	112	75	1/2/3/4
13D1-XXS12NXNL	12	84	75	1/2/3/4
13D1-XXS15NXNL	15	67	75	2/3/4
13D1-XXS24NXNL	24	42	80	3/4

Note:1."XX" Is Input Voltage:03=3.3Vdc,05=05Vdc,09=09Vdc,12=12Vdc,15=15Vdc,24=24Vdc. 2. Over 24Vdc input voltage, using the 3 package
 3. Over 15Vdc input voltage, using the 2/3/4 package

Input Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Types				±10	%
Filter	Capacitor				

Output Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance				±5	%
Short Circuit Protection	Short Term			1 Sec	
Line Regulation	For 1.0% OF Vin		1.2		%
Load Regulation	3.3V & 5V (10% To 100% F.L)			15	%
Load Regulation	9V.12V.15V&24V (10% To 100% F.L)			10	%
Ripple & Noise	BW=DC To 20MHZ			150	mVp-p
Transient response setting time	50% load step change		350		us

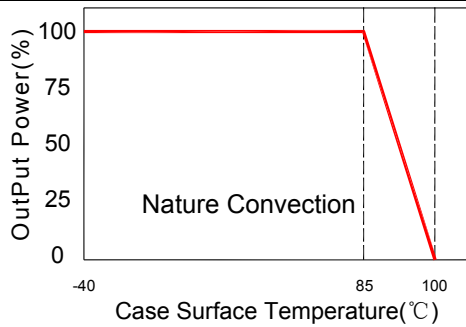
General Specifications

Parameters	Conditions	Min	Typ	Max	Units
Isolation Resistance	500Vdc	1000			MΩ
Switingfrequency			100		KHz
Operating Temperature		-40		+85	°C
Humidity	Non Condensing			95	%
Cooling	Free air Convection				
Case material	DAP				
Weight			2.3		g
Dimensions	Package 1		11.50x6.0x7.5		mm
Dimensions	Package 2		11.50x6.00x10.0		mm
Dimensions	Package 3		11.50x7.50x10.0		mm
Dimensions	Package 4		12.7x10.16x7.50		mm

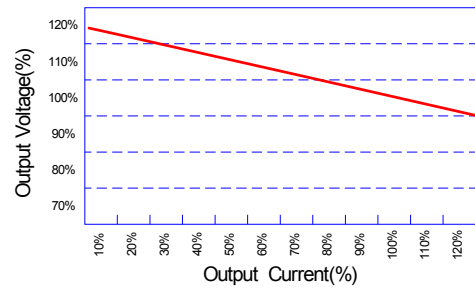


3000Vdc Single Output 1 Watt Dc-Dc Converter

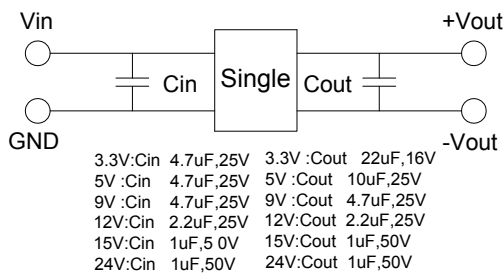
Temperature Derating Graph



Tolerance Envelope Graph



Recommended Test Circuit

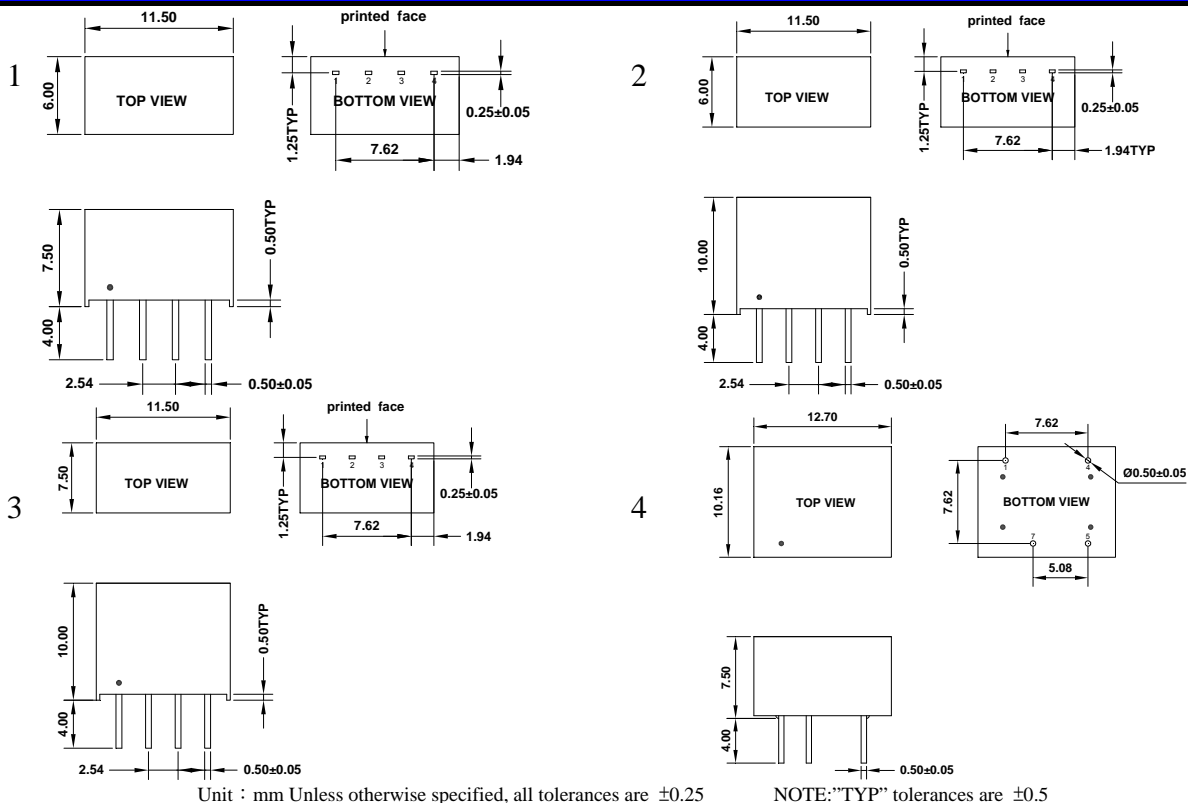


Part Number

13D1 - 03 S 05 N 2 NL
 A B C D E F G

A:Series
 B:Input Voltage
 C:Single Output
 D:Output Voltage
 E:Unregulated(N)
 F:Packge
 G:RoHS Version

Markings and dimensions



PIN Connection

PIN	1	2	3	4	5	7
4IN	-Vin	+Vin	-Vout	+Vout		
8IN	-Vin			+Vin	+Vout	-Vout