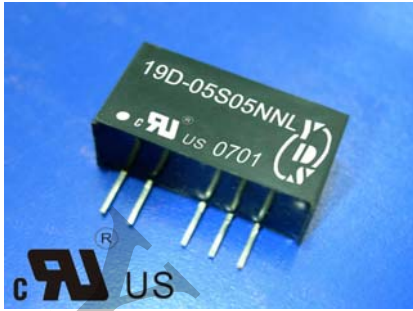




1000Vdc Isolation Single & Dual Output 2 Watt Dc-Dc Converter



FEATURES:

- 7PIN SIP PACKAGE.
- High Efficiency up to 85%
- Recognized By UL 60950-1
- Unregulated Output Types
- Internal SMD Construction ● No External Component Required
- Operating Temperature: -40°C TO +85°C ● Industry Standard Pinout



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

Part Number	Output Voltage	Output Current	Efficiency
	Vdc	mA	%TYP
19D-XXS05NNL	5	400	70
19D-XXS09NNL	9	222	75
19D-XXS12NNL	12	167	80
19D-XXS15NNL	15	133	80
19D-XXS24NNL	24	84	85
19D-XXD05NNL	±5	±200	70
19D-XXD09NNL	±9	±111	75
19D-XXD12NNL	±12	±84	80
19D-XXD15NNL	±15	±67	80
19D-XXD24NNL	±24	±42	85

Note:1"XX" Is Input Voltage:05=5Vdc, 09=9Vdc, 12=12Vdc, 15=15Vdc, 24=24Vdc.

2.The input voltage increases, there will be an increase in efficiency

Input Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance	Vo,Io Nom			±10	%
Filter	Capacitor				

Output Specifications

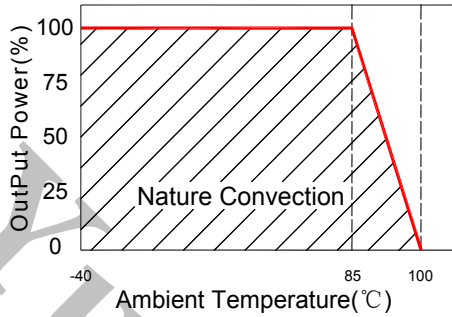
Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance	100% full load			±5	%
Short Circuit Protection	Short Term			1 Sec	
Line Regulation	For 1.0% OF Vin		1.2		%
Load Regulation	5V(10% To 100% F.L)			15	%
Load Regulation	9V,12V,15V,24V(10% To 100% F.L)			10	%
Ripple & Noise	BW=DC To 20MHz			100	mVp-p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

General Specifications

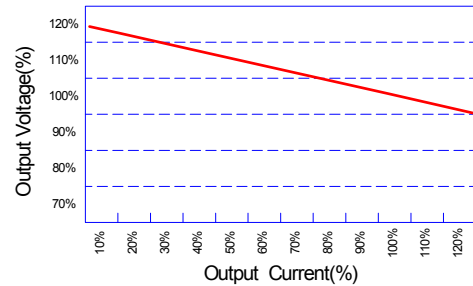
Parameters	Conditions	Min	Typ	Max	Units
Isolation Resistance	500Vdc	1000			MΩ
Switching Frequency	Full load,nominal input		75		KHz
Operating Temperature		-40		+85	°C
Humidity	Non Condensing			95	%
Cooling	Free air Convection				
Case material	DAP				
MTBF	MIL-HDBK-217F@25°C	3500000			Hours
Weight			2.7		g
Dimensions			19.5x7.1x10.0		mm



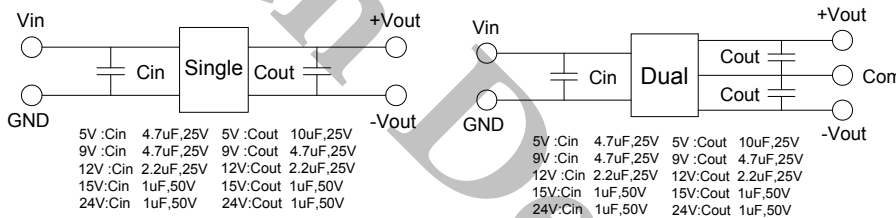
Temperature Derating Graph



Tolerance Envelope Graph



Recommended Test Circuit



5V :Cin 4.7uF,25V 5V :Cout 10uF,25V
 9V :Cin 4.7uF,25V 9V :Cout 4.7uF,25V
 12V :Cin 2.2uF,25V 12V:Cout 2.2uF,25V
 15V:Cin 1uF,50V 15V:Cout 1uF,50V
 24V:Cin 1uF,50V 24V:Cout 1uF,50V

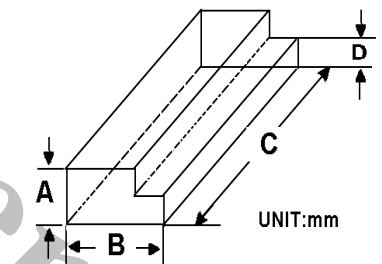
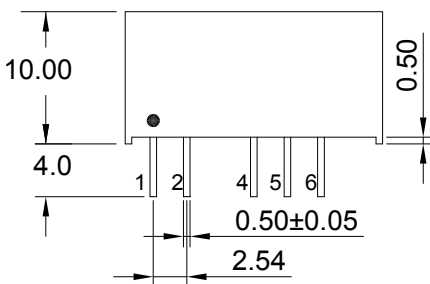
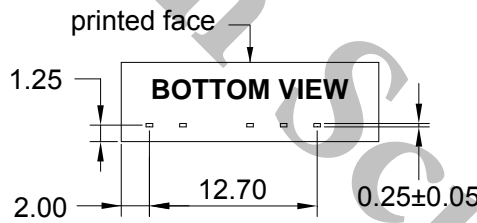
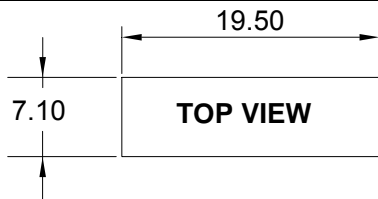
5V :Cin 4.7uF,25V 5V :Cout 10uF,25V
 9V :Cin 4.7uF,25V 9V :Cout 4.7uF,25V
 12V :Cin 2.2uF,25V 12V:Cout 2.2uF,25V
 15V:Cin 1uF,50V 15V:Cout 1uF,50V
 24V:Cin 1uF,50V 24V:Cout 1uF,50V

Part Number

19D - 05 S 05 N NL
 A B C D E F
 A:Series
 B:Input Voltage
 C:Single(S)Dual(D)
 D:Output Voltage
 E:Unregulated(N)
 F:RoHS Version

Markings and Dimensions

Packaging



Size(mm)			
A	B	C	D
9.50	16.50	522	5.00

UNIT:mm Unless otherwise specified,all tolerances are ±0.25

PIN Connection

7PIN	1	2	4	5	6
Single	+Vin	-Vin	-Vout	NO PIN	+Vout
Dual	+Vin	-Vin	-Vout	Com	+Vout