

MMT

A decorative blue wavy graphic that flows across the top of the page, starting from the left and curving towards the right.

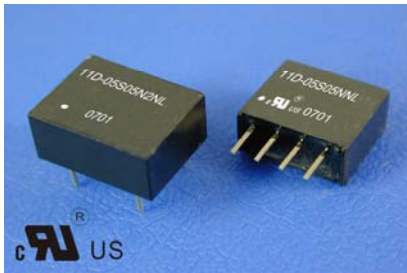
DC/DC CONVERTER

A decorative green graphic featuring a leafy branch on the left side and a large, stylized green leaf shape that curves across the bottom of the page.

0.25

Watt

1000Vdc Isolation Single & Dual Output 250mWatt Dc-Dc Converter



FEATURES:

- 4PIN SIP & 8PIN DIL Package
- High Efficiency up to 85%.
- Unregulated Output Types
- Recognized By UL 60950-1
- 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	Package Style
	Vdc	mA	%TYP	"X"
11D-XXS03NNL	3.3	76	65	1
11D-XXS05NNL	5	50	65	1
11D-XXS09NNL	9	28	70	1
11D-XXS12NNL	12	21	70	1
11D-XXS15NNL	15	16	70	1
11D-XXS24NNL	24	10	70	1
11D-XXS03NXNL	3.3	76	65	2/3/4/5
11D-XXS05NXNL	5	50	65	2/3/4/5
11D-XXS09NXNL	9	28	70	2/3/4/5
11D-XXS12NXNL	12	21	70	2/3/4/5
11D-XXS15NXNL	15	16	70	2/3/4
11D-XXS24NXNL	24	10	70	2/3/4
11D-XXD03NXNL	±3.3	±38	65	2/3
11D-XXD05NXNL	±5	±25	65	2/3
11D-XXD09NXNL	±9	±14	70	2/3
11D-XXD12NXNL	±12	±10	70	2/3
11D-XXD15NXNL	±15	±8	70	2/3
11D-XXD24NXNL	±24	±5	70	2/3

Note:1."XX" Is Input Voltage:03=3.3Vdc,05=5Vdc,09=9Vdc, 12=12Vdc, 15=15Vdc,24=24Vdc

2.Over 15V.24V input voltage using the 1/2/3/4 Package.

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

Input Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance	Vo,Io Nom			±5	%
Filter	Capacitor				

Output Specifications

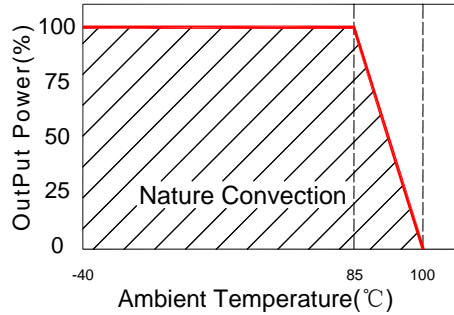
Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance	100% full load			±5	%
Short Circuit Protection	Short Term			1 Sec	
Line Regulation	For 1.0% OF Vin		1.2		%
Load Regulation	3.3V,5V(10% To 100% F.L)			15	%
Load Regulation	9V,12V,15V,24V(10% To 100% F.L)			10	%
Ripple & Noise	BW=DC To 20MHz			100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

General Specifications

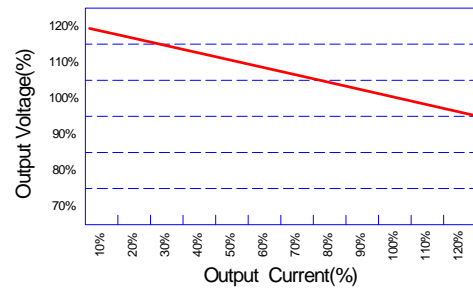
Parameters	Conditions	Min	Typ	Max	Units
Isolation Resistance	500Vdc	1000			MΩ
Switching Frequency	Full load,nominal input		100		KHz
Operating Temperature		-40		+85	°C
Humidity	Non Condensing			95	%
Cooling	Free air Convection				
Case material	DAP				
MTBF	MIL-HDBK-217F@25°C	3500000			Hours
Weight	Package 1/2/3/4/5		1.5/1.5/1.9/1.9/1.1		g
Dimensions	Package 1		11.50x6.00x10.00		mm
Dimensions	Package 2		12.70x10.16x6.80		mm
Dimensions	Package 3		12.70x10.16x7.50		mm
Dimensions	Package 4		11.50x7.50x10.00		mm
Dimensions	Package 5		11.50x6.0x7.50		mm

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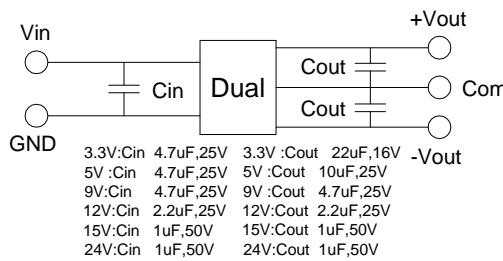
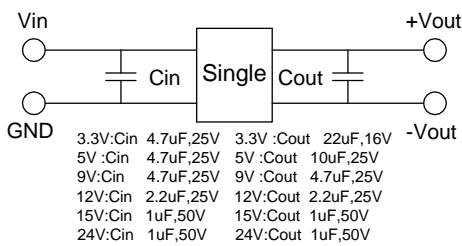
Temperature Derating Graph



Tolerance Envelope Graph



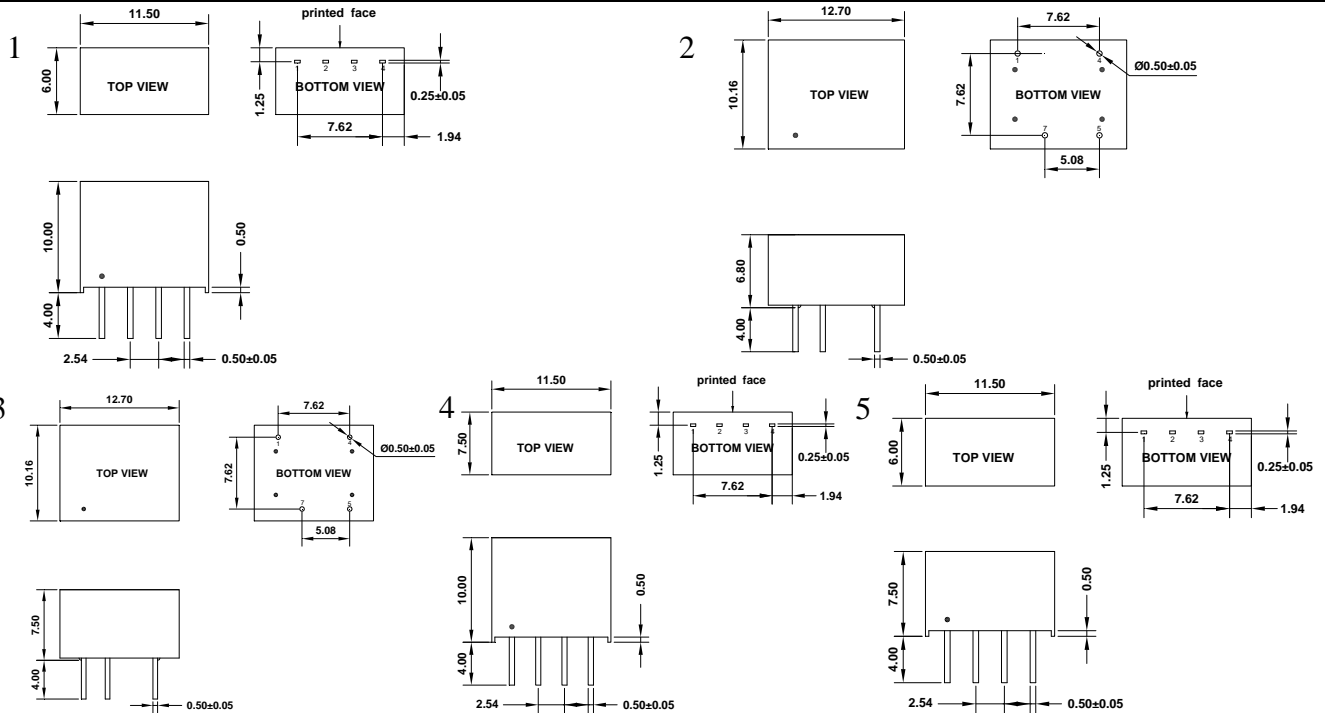
Recommended Test Circuit



Part Number

11D - 05 S 05 N 2 NL
 A B C D E F G
 A:Series
 B:Input Voltage
 C:Single(S)Dual(D)
 D:Output Voltage
 E:Unregulated(N)
 F:Package
 G:RoHS Version

Markings and dimensions



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

PIN Connection

PIN	1	2	3	4	5	6	7	8
SINGLE(4PIN)	-Vin	+Vin	-Vout	+Vout				
SINGLE(8PIN)	-Vin	NO PIN	NO PIN	+Vin	+Vout	NO PIN	-Vout	NC
DUAL(8PIN)	-Vin	NO PIN	NO PIN	+Vin	+Vout	NO PIN	COM	-Vout