

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 at the bottom, with a white ribbon-like element winding through it.

3 Watt

2019

<http://www.mmtmachrone.com>

FEATURES :

- 7PIN SIP Package
- High Efficiency up to 87%
- Unregulated Output Types
- Internal SMD Construction
- No External Component Required
- Industry Standard Pinout
- Operating Temperature:-40°C TO +85°C

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
12D-05S05N3W	5	600	82
12D-05S09N3W	9	333	85
12D-05S12N3W	12	250	85
12D-05S15N3W	15	200	85
12D-12S05N3W	5	600	82
12D-12S09N3W	9	333	85
12D-12S12N3W	12	250	86
12D-12S15N3W	15	200	87
12D-24S05N3W	5	600	82
12D-24S09N3W	9	333	85
12D-24S12N3W	12	250	85
12D-24S15N3W	15	200	85
12D-05D05N3W	±5	±300	82
12D-05D09N3W	±9	±167	85
12D-05D12N3W	±12	±125	82
12D-05D15N3W	±15	±100	85
12D-12D05N3W	±5	±300	82
12D-12D09N3W	±9	±167	85
12D-12D12N3W	±12	±125	86
12D-12D15N3W	±15	±100	87
12D-24D05N3W	±5	±300	82
12D-24D09N3W	±9	±167	85
12D-24D12N3W	±12	±125	85
12D-24D15N3W	±15	±100	85

Input Specifications

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



DC-DC Converter

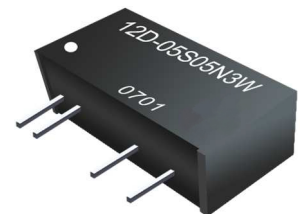
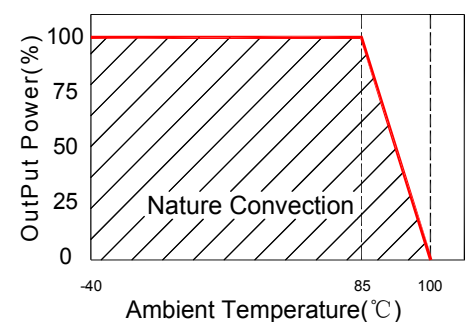
12D-3W SERIES

3Watt

3KV Isolated

Single & Dual Output

SIP7

**Temperature Derating Graph**

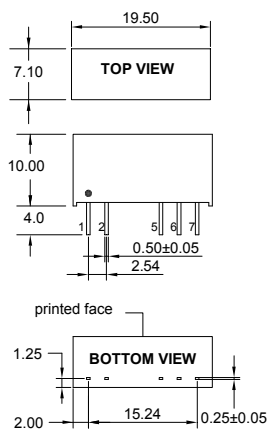
Output Specifications

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 (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		60		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

Markings and dimensions

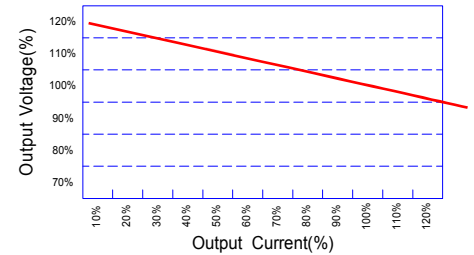


Unit:mm Unless otherwise specified, all tolerances are ±0.25

PIN Connection

PIN	1	2	5	6	7
Single	+Vin	-Vin	-Vout	No Pin	+Vout
Dual	+Vin	-Vin	-Vout	Common	+Vout

Tolerance Envelope Graph

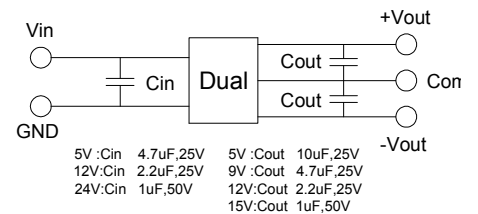
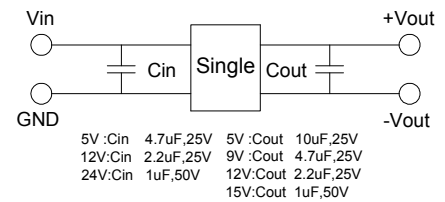


Part Number

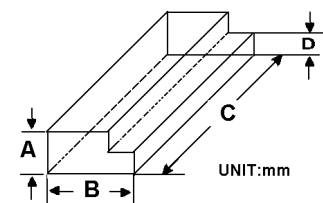
12D - 05 S 05 N 3W
A B C D E F

A:Series
B:Input Voltage
C:Single(S)Dual(D)
D:Output Voltage
E:Unregulated(N)
F:Output Power

Recommended Test Circuit



Packaging



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

FEATURES :

- 7PIN SIP Package
- High Efficiency up to 87%
- Unregulated Output Types
- Internal SMD Construction
- No External Component Required
- Industry Standard Pinout
- Operating Temperature:-40°C TO +85°C



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
14D-05S05N3W	5	600	82
14D-05S09N3W	9	333	85
14D-05S12N3W	12	250	82
14D-05S15N3W	15	200	85
14D-12S05N3W	5	600	82
14D-12S09N3W	9	333	85
14D-12S12N3W	12	250	86
14D-12S15N3W	15	200	87
14D-24S05N3W	5	600	82
14D-24S09N3W	9	333	85
14D-24S12N3W	12	250	85
14D-24S15N3W	15	200	86
14D-05D05N3W	±5	±300	82
14D-05D09N3W	±9	±167	85
14D-05D12N3W	±12	±125	82
14D-05D15N3W	±15	±100	85
14D-12D05N3W	±5	±300	82
14D-12D09N3W	±9	±167	85
14D-12D12N3W	±12	±125	86
14D-12D15N3W	±15	±100	87
14D-24D05N3W	±5	±300	82
14D-24D09N3W	±9	±167	85
14D-24D12N3W	±12	±125	85
14D-24D15N3W	±15	±100	86

Input Specifications

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

DC-DC Converter

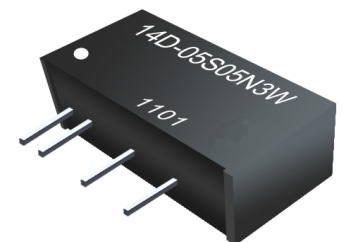
14D-3W SERIES

3Watt

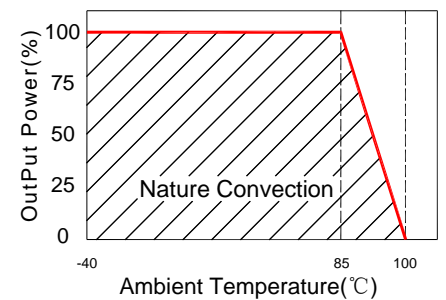
1KV Isolated

Single & Dual Output

SIP7



Temperature Derating Graph



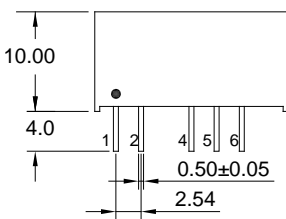
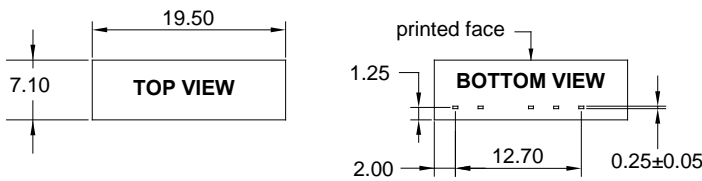
Output Specifications

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 (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			2.7		g
Dimensions			19.5x7.1x10.0		mm

Markings and dimensions

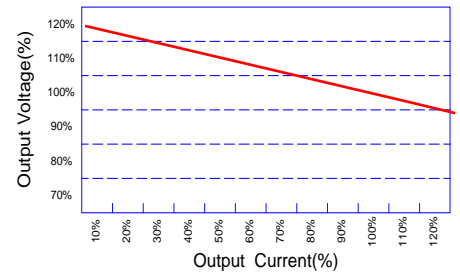


Unit : mm Unless otherwise specified, all tolerances are ±0.25

PIN Connection

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

Tolerance Envelope Graph

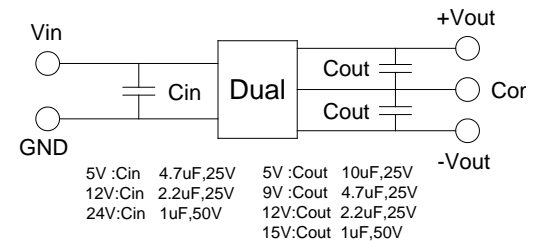
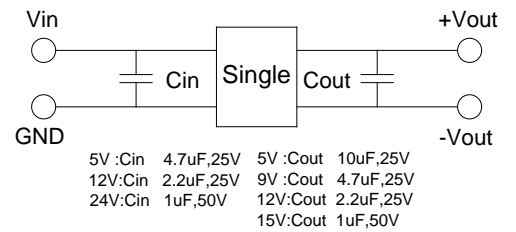


Part Number

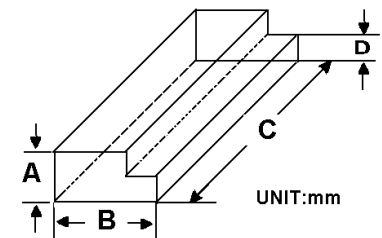
14D - 05 S 05 N 3W
A B C D E F

- A:Series
- B:Input Voltage
- C:Single(S)Dual(D)
- D:Output Voltage
- E:Unregulated(N)
- F:Output Power

Recommended Test Circuit



Packaging



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

FEATURES :

- 2:1Wide Input Voltages Range
- High Efficiency up to 80%
- Regulated Output Types
- Low Ripple And Noise
- Internal SMD Construction
- 1.5KVDC & 3KVDC Isolation
- Operating Temperature:-40°C TO +85°C
- Industry Standard Pinout
- Continuous Short Circuit Protection With Current Foldback

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

Part Number	Input Voltage	Output Voltage	Output Current	Efficiency
	Vdc	Vdc	mA	%TYP
27D-12S03R3W (3KV)	9-18	3.3	909	70
27D-12S05R3W (3KV)	9-18	5	600	70
27D-12S09R3W (3KV)	9-18	9	333	75
27D-12S12R3W (3KV)	9-18	12	250	78
27D-12S15R3W (3KV)	9-18	15	200	80
27D-24S03R3W (3KV)	18-36	3.3	700	68
27D-24S05R3W (3KV)	18-36	5	600	70
27D-24S09R3W (3KV)	18-36	9	333	75
27D-24S12R3W (3KV)	18-36	12	250	78
27D-24S15R3W (3KV)	18-36	15	200	80
27D-48S03R3W (3KV)	36-72	3.3	700	68
27D-48S05R3W (3KV)	36-72	5	600	70
27D-48S09R3W (3KV)	36-72	9	333	75
27D-48S12R3W (3KV)	36-72	12	250	78
27D-48S15R3W (3KV)	36-72	15	200	80

NOTE :

No suffix is standard isolation (1.5KVDC) e.g, 27D-12S05R3W
 *add suffix /3KV for 3KVDC isolation, e.g, 27D-12S05R3W3KV

Input Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Types	Vo, Io Nom			2:1	
Filter	Capacitor				



DC-DC Converter

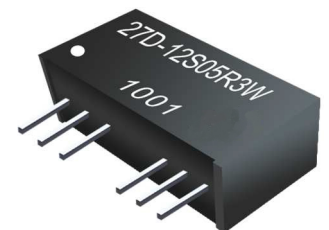
27D-3W SERIES

3Watt 1.5KV & 3KV Isolated

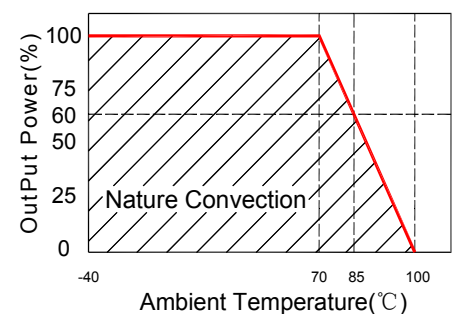
2 : 1 Input Voltage Range

Single Output

SIP8



Temperature Derating Graph



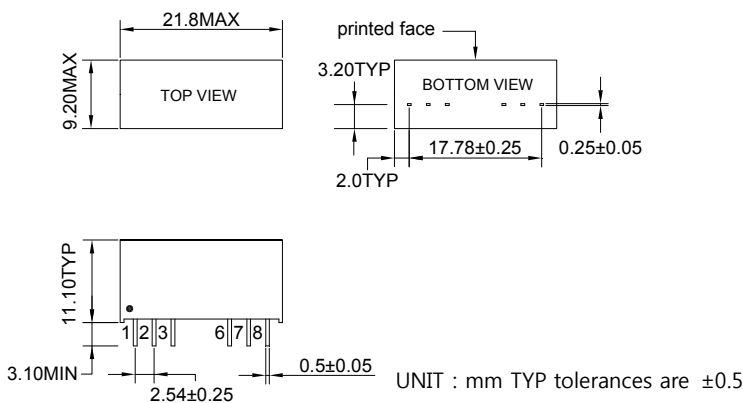
Output Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance	100% full load			±3	%
Short Circuit Protection	Continuous				
Line Regulation	Regulated			±0.5	%
Load Regulation	Regulated			±0.8	%
Ripple & Noise	Output:3.3V-9V TYPES BW=DC To 20MHz			100	mVp-p
Ripple & Noise	Output:12-15V TYPES BW=DC To 20MHz			1% of Vout	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	1500000			Hours
Weight			4.5		g
Dimensions			21.8x9.2x11.1		mm

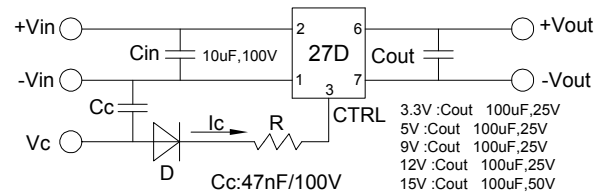
Markings and dimensions



Part Number

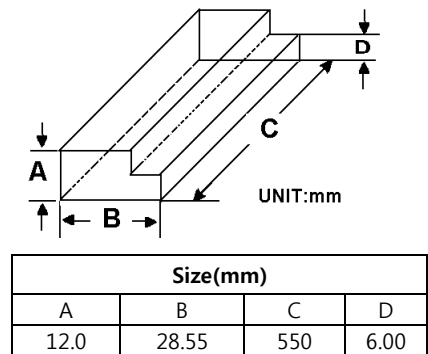
27D - 12 S 05 R 3W 3KV
 A B C D E F G
 A:Series
 B:Input Voltage
 C:Single Output
 D:Output Voltage
 E:Regulated(R)
 F:Output Power
 G:Isolation Voltage

Recommended Test Circuit



1. When open or high impedance, the converter works well; when this pin is 'high', the converter shut down. It should be note that the input current should be between 5-10mA, exceeding the maximum 20mA will cause permanent damage to the converter.
2. To make sure the product work at perfect operation status with full loading external capacitor is necessary and it is recommended to use high frequency low resistance electrolytic capacitor.

Packaging



PIN Connection

Pin	1	2	3	6	7	8
Single	-Vin	+Vin	Ctrl-Control input can (can be left open)	+Vout	-Vout	NC

FEATURES :

- 2:1Wide Input Voltages Range
- High Efficiency up to 80%
- Regulated Output Types
- Low Ripple And Noise
- Internal SMD Construction
- 1.5KVDC & 3KVDC Isolation
- Operating Temperature:-40°C TO +85°C
- Industry Standard Pinout
- Continuous Short Circuit Protection With Current Foldback

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

Part Number	Input Voltage	Output Voltage	Output Current	Efficiency
	Vdc	Vdc	mA	%TYP
27D-12D05R3W (3KV)	9-18	±5	±300	70
27D-12D09R3W (3KV)	9-18	±9	±167	75
27D-12D12R3W (3KV)	9-18	±12	±125	78
27D-12D15R3W (3KV)	9-18	±15	±100	80
27D-24D05R3W (3KV)	18-36	±5	±300	70
27D-24D09R3W (3KV)	18-36	±9	±167	75
27D-24D12R3W (3KV)	18-36	±12	±125	78
27D-24D15R3W (3KV)	18-36	±15	±100	80
27D-48D05R3W (3KV)	36-72	±5	±300	70
27D-48D09R3W (3KV)	36-72	±9	±167	75
27D-48D12R3W (3KV)	36-72	±12	±125	78
27D-48D15R3W (3KV)	36-72	±15	±100	80

NOTE :

No suffix is standard isolation (1.5KVDC) e.g. 27D-12D05R3W
 *add suffix /3KV for 3KVDC isolation, e.g. 27D-12D05R3W3KV

Input Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Types	Vo, Io Nom			2:1	
Filter	Capacitor				



DC-DC Converter

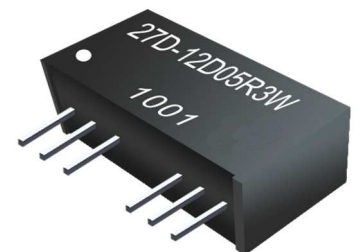
27D-3W SERIES

3Watt 1.5KV & 3KV Isolated

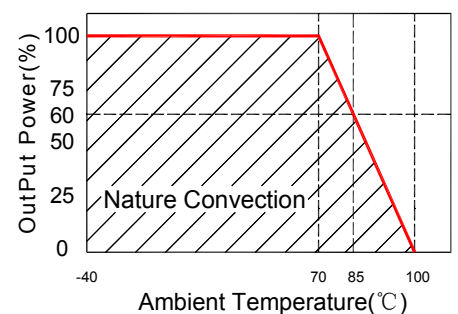
2 : 1 Input Voltage Range

Dual Output

SIP8



Temperature Derating Graph



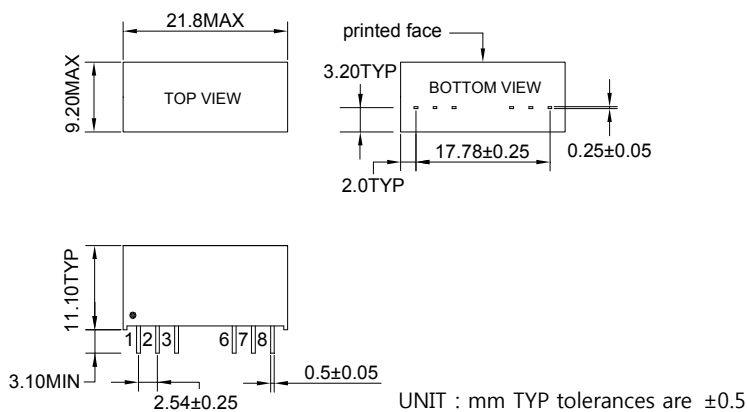
Output Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance	100% full load			±3	%
Short Circuit Protection	Continuous				
Line Regulation	Regulated			±0.5	%
Load Regulation	Regulated			±0.8	%
Ripple & Noise	Output:5-9V TYPES BW=DC To 20MHz			100	mVp-p
Ripple & Noise	Output:12-15V TYPES BW=DC To 20MHz		1% of Vout		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	1500000			Hours
Weight			4.5		g
Dimensions			21.8x9.2x11.1		mm

Markings and dimensions

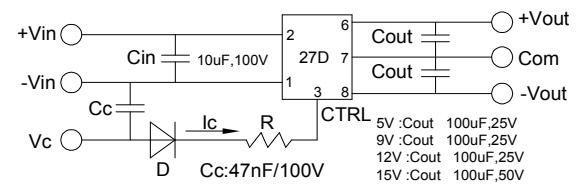


Part Number

27D - 12 D 05 R 3W 3KV
A B C D E F G

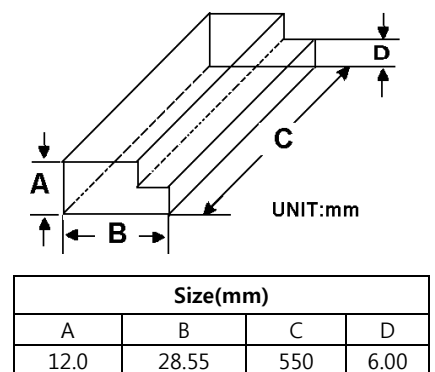
- A:Series
- B:Input Voltage
- C:Dual Output
- D:Output Voltage
- E:Regulated(R)
- F:Output Power
- G:Isolation Voltage

Recommended Test Circuit



1. When open or high impedance, the converter works well; when this pin is 'high', the converter shut down. It should be note that the input current should be between 5-10mA, exceeding the maximum 20mA will cause permanent damage to the converter.
2. To make sure the product work at perfect operation status with full loading external capacitor is necessary and it is recommended to use high frequency low resistance electrolytic capacitor.

Packaging



PIN Connection

Pin	1	2	3	6	7	8
Dual	-Vin	+Vin	Ctrl-Control input can (can be left open)	+Vout	COM	-Vout

FEATURES :

- 4:1Wide Input Voltages Range
- High Efficiency up to 80%
- Regulated Output Types
- Low Ripple And Noise
- Internal SMD Construction
- 1.5KVDC & 3KVDC Isolation
- Operating Temperature:-40°C TO +85°C
- Industry Standard Pinout
- Continuous Short Circuit Protection With Current Foldback

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

Part Number	Input Voltage	Output Voltage	Output Current	Efficiency
	Vdc	Vdc	mA	%TYP
27DW-24S03R3W (3KV)	9-36	3.3	700	68
27DW-24S05R3W (3KV)	9-36	5	600	70
27DW-24S09R3W (3KV)	9-36	9	333	75
27DW-24S12R3W (3KV)	9-36	12	250	78
27DW-24S15R3W (3KV)	9-36	15	200	80
27DW-48S03R3W (3KV)	18-75	3.3	700	68
27DW-48S05R3W (3KV)	18-75	5	600	70
27DW-48S09R3W (3KV)	18-75	9	333	75
27DW-48S12R3W (3KV)	18-75	12	250	78
27DW-48S15R3W (3KV)	18-75	15	200	80

NOTE :

No suffix is standard isolation (1.5KVDC) e.g, 27DW-24S05R3W
 *add suffix /3KV for 3KVDC isolation, e.g, 27DW-24S05R3W3KV

Input Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Types	Vo, Io Nom			4:1	
Filter	Capacitor				



DC-DC Converter

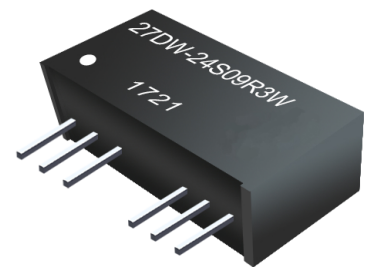
27DW-3W SERIES

3Watt 1.5KV & 3KV Isolated

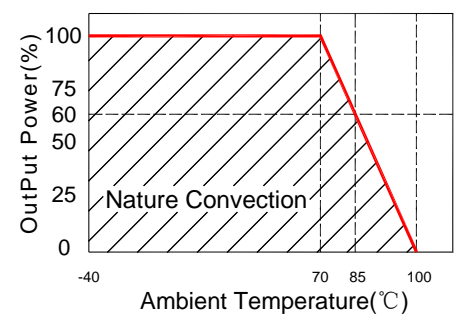
4 : 1 Input Voltage Range

Single Output

SIP8



Temperature Derating Graph



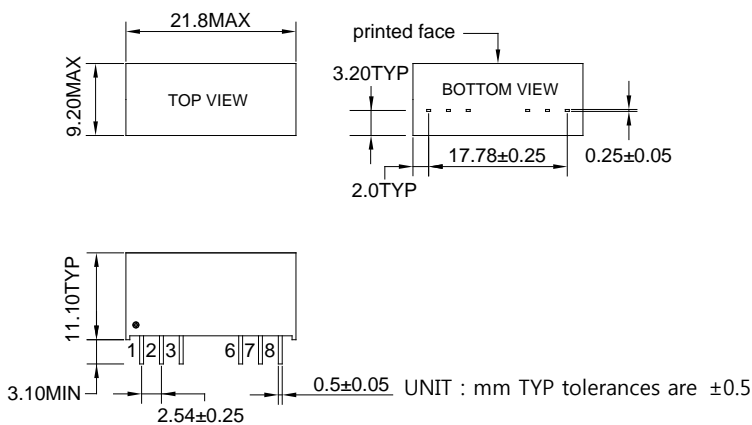
Output Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance	100% full load			±3	%
Short Circuit Protection	Continuous				
Line Regulation	Regulated			±0.5	%
Load Regulation	Regulated			±0.8	%
Ripple & Noise	Output:3.3V-9V TYPES BW=DC To 20MHz			100	mVp-p
Ripple & Noise	Output:12-15V TYPES BW=DC To 20MHz		1% of Vout		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	1500000			Hours
Weight			4.5		g
Dimensions			21.8x9.2x11.1		mm

Markings and dimensions

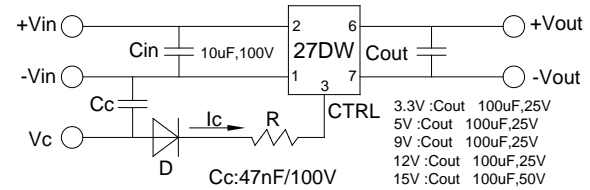


Part Number

27DW - 24 S 05 R 3W 3KV
A B C D E F G

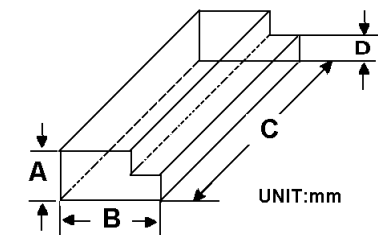
A:Series
B:Input Voltage
C:Single Output
D:Output Voltage
E:Regulated(R)
F:Output Power
G:Isolation Voltage

Recommended Test Circuit



- When open or high impedance, the converter works well; when this pin is 'high', the converter shut down. It should be note that the input current should be between 5-10mA, exceeding the maximum 20mA will cause permanent damage to the converter.
- To make sure the product work at perfect operation status with full loading external capacitor is necessary and it is recommended to use high frequency low resistance electrolytic capacitor.

Packaging



Size(mm)			
A	B	C	D
12.0	28.55	550	6.00

PIN Connection

Pin	1	2	3	6	7	8
Single	-Vin	+Vin	Ctrl-Control input can (can be left open)	+Vout	-Vout	NC

FEATURES :

- 4:1Wide Input Voltages Range
- High Efficiency up to 80%
- Regulated Output Types
- Low Ripple And Noise
- Internal SMD Construction
- 1.5KVDC & 3KVDC Isolation
- Operating Temperature:-40°C TO +85°C
- Industry Standard Pinout
- Continuous Short Circuit Protection With Current Foldback

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

Part Number	Input Voltage	Output Voltage	Output Current	Efficiency
	Vdc	Vdc	mA	%TYP
27DW-24D05R3W (3KV)	9-36	±5	±300	70
27DW-24D09R3W (3KV)	9-36	±9	±167	75
27DW-24D12R3W (3KV)	9-36	±12	±125	78
27DW-24D15R3W (3KV)	9-36	±15	±100	80
27DW-48D05R3W (3KV)	18-75	±5	±300	70
27DW-48D09R3W (3KV)	18-75	±9	±167	75
27DW-48D12R3W (3KV)	18-75	±12	±125	78
27DW-48D15R3W (3KV)	18-75	±15	±100	80

NOTE :

No suffix is standard isolation (1.5KVDC) e.g, 27DW-24D05R3W
 *add suffix /3KV for 3KVDC isolation, e.g, 27DW-24D05R3W3KV

Input Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Types	Vo, Io Nom			4:1	
Filter	Capacitor				

Output Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance	100% full load			±3	%
Short Circuit Protection	Continuous				
Line Regulation	Regulated			±0.5	%
Load Regulation	Regulated			±0.8	%
Ripple & Noise	Output:5-9V TYPES BW=DC To 20MHz			100	mVp-p
Ripple & Noise	Output:12-15V TYPES BW=DC To 20MHz		1%	of Vout	mVp-p
Transient response setting time	50% load step change		350		us



DC-DC Converter

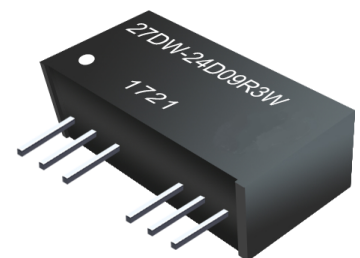
27DW-3W SERIES

3Watt 1.5KV & 3KV Isolated

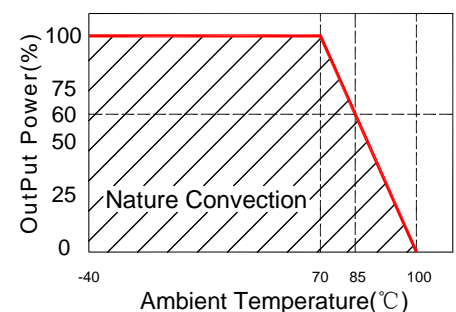
4 : 1 Input Voltage Range

Dual Output

SIP8



Temperature Derating Graph



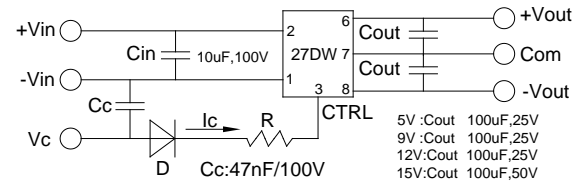
General Specifications

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	1500000			Hours
Weight			4.5		g
Dimensions			21.8x9.2x11.1		mm

Part Number

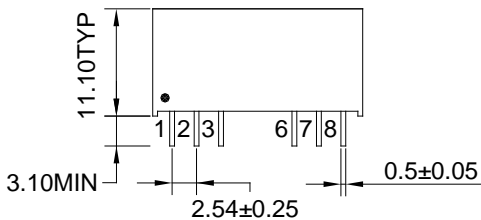
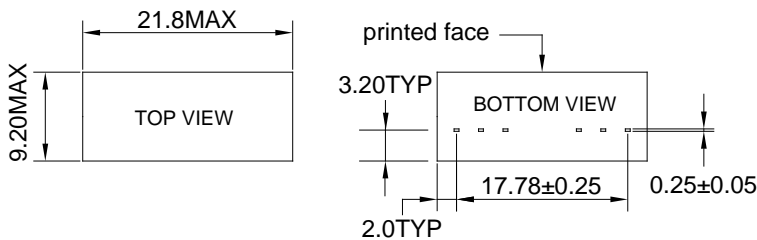
27DW - 24 D 05 R 3W 3KV
 A B C D E F G
 A:Series
 B:Input Voltage
 C:Dual Output
 D:Output Voltage
 E:Regulated(R)
 F:Output Power
 G:Isolation Voltage

Recommended Test Circuit



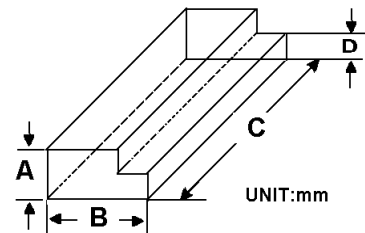
1. When open or high impedance, the converter works well; when this pin is 'high', the converter shut down. It should be note that the input current should be between 5-10mA, exceeding the maximum 20mA will cause permanent damage to the converter.
2. To make sure the product work at perfect operation status with full loading external capacitor is necessary and it is recommended to use high frequency low resistance electrolytic capacitor.

Markings and dimensions



UNIT : mm TYP tolerances are ±0.5

Packaging



Size(mm)			
A	B	C	D
12.0	28.55	550	6.00

PIN Connection

Pin	1	2	3	6	7	8
Dual	-Vin	+Vin	Ctrl-Control input can (can be left open)	+Vout	COM	-Vout

FEATURES :

- 2:1 Wide Input Voltages Range
- 16PIN SMD Package
- High Efficiency up to 87%
- Regulated 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	Input Voltage Range	Output Voltage	Output Current	Efficiency
	Vdc	Vdc	mA	%TYP
28D-05S03R3W	4.5-9	3.3	700	70
28D-05S05R3W	4.5-9	5	600	75
28D-05S12R3W	4.5-9	12	250	77
28D-05S15R3W	4.5-9	15	200	75
28D-05D05R3W	4.5-9	±5	±300	72
28D-05D12R3W	4.5-9	±12	±125	74
28D-05D15R3W	4.5-9	±15	±100	75
28D-12S03R3W	9-18	3.3	700	75
28D-12S05R3W	9-18	5	600	79
28D-12S12R3W	9-18	12	250	82
28D-12S15R3W	9-18	15	200	82
28D-12D05R3W	9-18	±5	±300	72
28D-12D12R3W	9-18	±12	±125	82
28D-12D15R3W	9-18	±15	±100	80
28D-24S03R3W	18-36	3.3	700	75
28D-24S05R3W	18-36	5	600	80
28D-24S12R3W	18-36	12	250	86
28D-24S15R3W	18-36	15	200	87
28D-24D05R3W	18-36	±5	±300	78
28D-24D12R3W	18-36	±12	±125	82
28D-24D15R3W	18-36	±15	±100	84
28D-48S03R3W	36-75	3.3	700	73
28D-48S05R3W	36-75	5	600	78
28D-48S12R3W	36-75	12	250	83
28D-48S15R3W	36-75	15	200	83
28D-48D05R3W	36-75	±5	±300	78
28D-48D12R3W	36-75	±12	±125	81
28D-48D15R3W	36-75	±15	±100	82

Input Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance	Vo, Io Nom			2:1	
Filter	Capacitor				



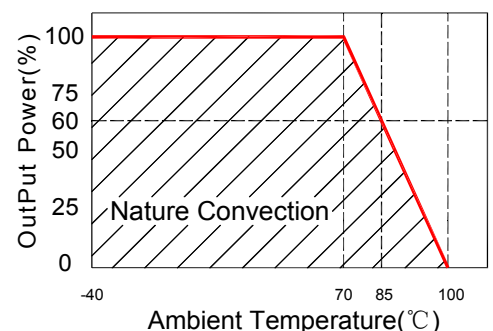
DC-DC Converter

28D-3W SERIES

3Watt 1.5KV Isolated
2 : 1 Input Voltage Range
Single & Dual Output
SMD



Temperature Derating Graph



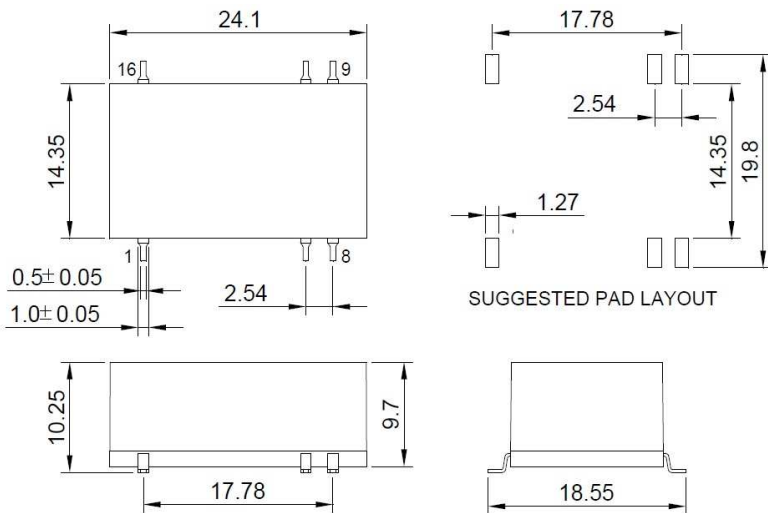
Output Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance	100% full load			±2	%
Short Circuit Protection	Continuous				
Line Regulation	Regulated			±0.5	%
Load Regulation	Regulated			±0.8	%
Ripple & Noise	BW=DC To 20MHz			100	mVp-p
Transient response setting time	50% load step change		350		us

General Specifications

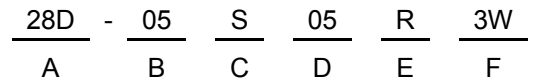
Parameters	Conditions	Min	Typ	Max	Units
Isolation Resistance	500Vdc	1000			MΩ
Switching Frequency	Full load, nominal input		100		KHz
Operating Temperature		-40		+85	°C
Humidity	Non Condensing			95	%
Cooling	Free air Convection				
Case material	DAP				
MTBF	MIL-HDBK-217F@25°C	1000000			Hours
Weight			3.9		g
Dimensions			24.1x14.35x10.25		mm

Markings and dimensions



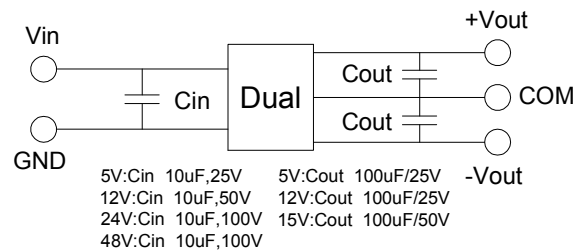
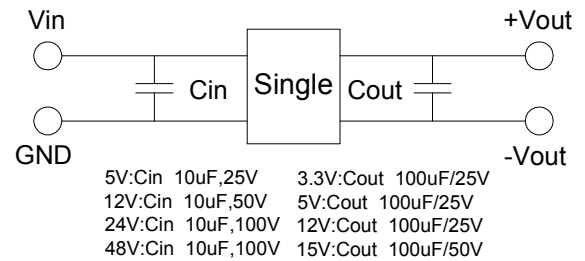
UNIT:mm Unless otherwise specified,all tolerances are ±0.25

Part Number



- A : Series
- B : Input Voltage
- C : Single(S);Dual(D)
- D : Output Voltage
- E : Regulated(R)
- F : Output Power

Recommended Test Circuit



PIN Assignment

Pin	1	7	8	9	10	16
Single	-Vin	NC	NC	+Vout	-Vout	+Vin
Dual	-Vin	NC	Com	+Vout	-Vout	+Vin

FEATURES :

- 24PIN DIL PACKAGE
- High Efficiency up to 85%
- Regulated Output Types
- Low Ripple And Noise
- Internal SMD Construction
- 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
46D-XXS05CN	5	600	65
46D-XXS09CN	9	333	70
46D-XXS12CN	12	250	75
46D-XXS15CN	15	200	80
46D-XXS24CN	24	125	80
46D-XXD05CN	±5	±300	65
46D-XXD09CN	±9	±167	70
46D-XXD12CN	±12	±125	75
46D-XXD15CN	±15	±100	80
46D-XXD24CN	±24	±63	80

Note:

- 1."XX" Is Input Voltage:05=5Vdc,09=9Vdc,12=12Vdc,15=15Vdc,24=24Vdc,48=48Vdc.
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			±3	%
Short Circuit Protection	Continuous				
Line Regulation	Regulated			±0.5	%
Load Regulation	Regulated			±0.8	%
Ripple & Noise	Output:5-9V TYPES BW=DC To 20MHz			100	mVp-p
Ripple & Noise	Output:12-24V TYPES BW=DC To 20MHz			1% of Vout	mVp-p
Transient response setting time	50% load step change		350		us

DC-DC Converter

46D SERIES

3Watt

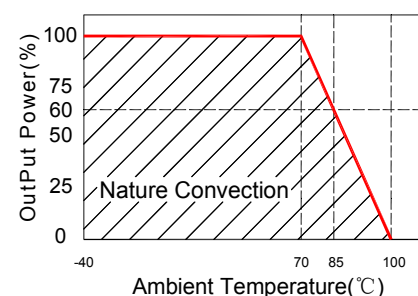
1.5KV Isolated

Single & Dual Output

DIL24



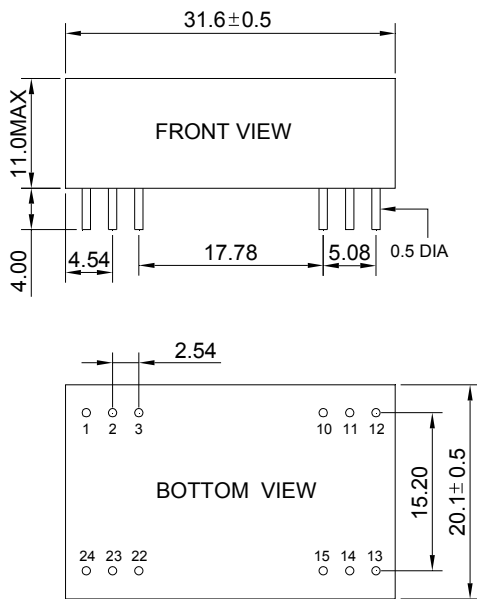
Temperature Derating Graph



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	Nickel Coated Copper With Non-Conductive Base				
MTBF	MIL-HDBK-217F@25°C	1500000			Hours
Weight			16.8		g
Dimensions		31.60X20.10X11.0			mm

Markings and Dimensions



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

PIN Connection

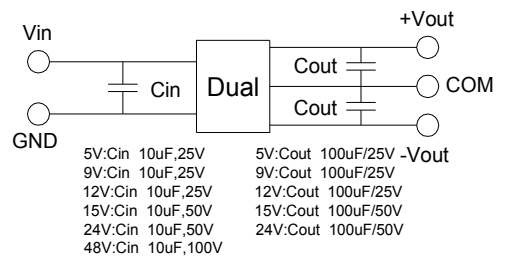
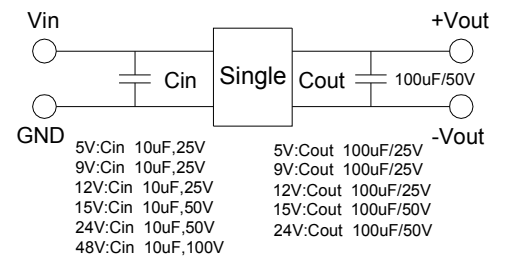
PIN	1.2.3	10.11	12	13	14	15	22.23.24
Single	+Vin	NC	-Vout	+Vout	NC	NC	-Vin
Dual	+Vin	COM	NC	-Vout	NC	+Vout	-Vin

Part Number

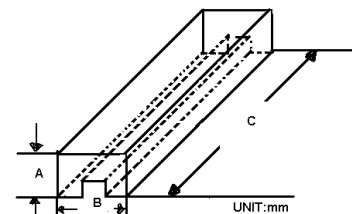
46D	-	05	S	05	C	N
A		B	C	D	E	F

- A : Series
- B : Input Voltage
- C : Single(S);Dual(D)
- D : Output Voltage
- E : Types
- F : Package

Recommended Test Circuit



Packaging



Size(mm)		
A	B	C
18.71	23.00	522

FEATURES :

- 24PIN DIL PACKAGE
- Low Ripple & Noise
- High Efficiency up to 85%
- Regulated Output Types
- Internal SMD Construction
- 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
54D-XXS05CN	5	600	65
54D-XXS09CN	9	333	70
54D-XXS12CN	12	250	75
54D-XXS15CN	15	200	80
54D-XXS24CN	24	125	80
54D-XXD05CN	±5	±300	65
54D-XXD09CN	±9	±167	70
54D-XXD12CN	±12	±125	75
54D-XXD15CN	±15	±100	80
54D-XXD24CN	±24	±63	80

Note:

- 1."XX" Is Input Voltage: 05=5Vdc, 09=9Vdc, 12=12Vdc, 15=15Vdc, 24=24Vdc, 48=48Vdc.
- 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			±3	%
Short Circuit Protection	Continuous				
Line Regulation	Regulated			±0.5	%
Load Regulation	Regulated			±0.8	%
Ripple & Noise	Output:5-9V TYPES BW=DC To 20MHz			100	mVp-p
Ripple & Noise	Output:12-24V TYPES BW=DC To 20MHz			1% of Vout	mVp-p
Transient response setting time	50% load step change		350		us

DC-DC Converter

54D SERIES

3Watt

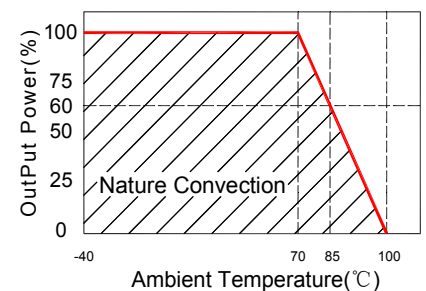
0.5KV Isolated

Single & Dual Output

DIL24



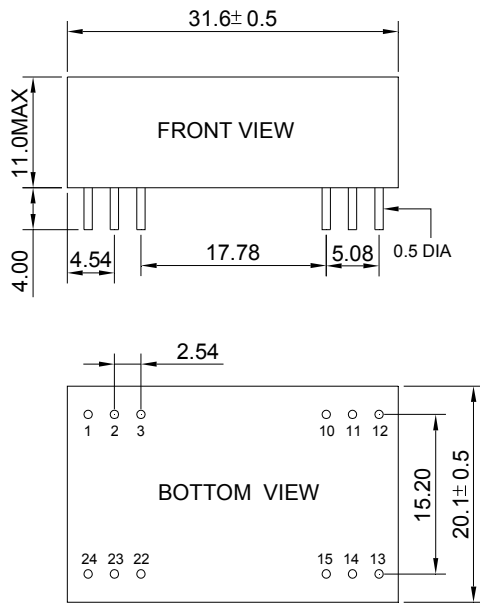
Temperature Derating Graph



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	Nickel Coated Copper With Non-Conductive Base				
MTBF	MIL-HDBK-217F@25°C	1500000			Hours
Weight			16.8		g
Dimensions		31.60x20.10x11.0			mm

Markings and Dimensions



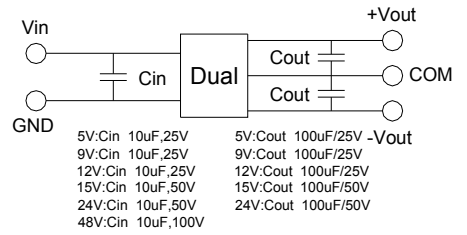
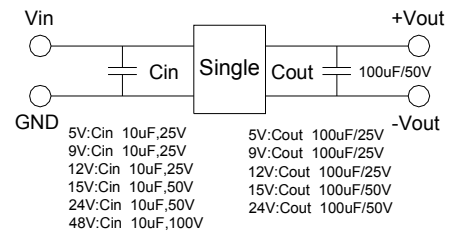
UNIT: mm Unless otherwise specified, all tolerances are ±0.25

Part Number

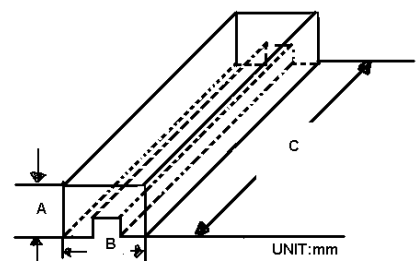
54D	-	05	S	05	C	N
A		B	C	D	E	F

- A : Series
- B : Input Voltage
- C : Single(S);Dual(D)
- D : Output Voltage
- E : Types
- F : Package

Recommended Test Circuit



Packaging



Size(mm)		
A	B	C
18.71	23.00	52.2

PIN Connection

PIN	1	2	3	10	11	12	13	14	15	22	23	24
Single	+Vin	NC	NC	-Vout	+Vout	-Vin	-Vin	+Vout	-Vout	NC	NC	+Vin
Dual	+Vin	-Vout	Com	Com	+Vout	-Vin	-Vin	+Vout	Com	Com	-Vout	+Vin

FEATURES :

- 5PIN DIL PACKAGE
- Low Ripple & Noise
- High Efficiency up to 85%
- Regulated Output Types
- Internal SMD Construction
- 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
60D-XXS05CN	5	600	65
60D-XXS09CN	9	333	70
60D-XXS12CN	12	250	75
60D-XXS15CN	15	200	80
60D-XXS24CN	24	125	80
60D-XXD05CN	±5	±300	65
60D-XXD09CN	±9	±167	70
60D-XXD12CN	±12	±125	75
60D-XXD15CN	±15	±100	80
60D-XXD24CN	±24	±63	80

Note:

- 1."XX" Is Input Voltage :05=5Vdc,09=9Vdc,12=12Vdc,15=15Vdc,24=24Vdc,48=48Vdc.
- 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			±3	%
Short Circuit Protection	Continuous				
Line Regulation	Regulated			±0.5	%
Load Regulation	Regulated			±0.8	%
Ripple & Noise	Output:5-9V TYPES BW=DC To 20MHz			100	mVp-p
Ripple & Noise	Output:12-24V TYPES BW=DC To 20MHz			1% of Vout	mVp-p

DC-DC Converter

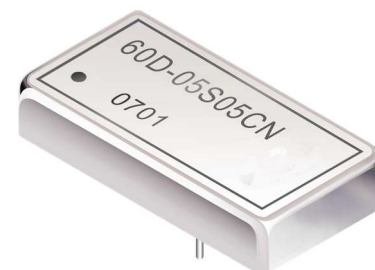
60D SERIES

3Watt

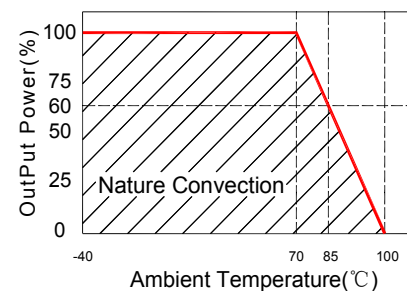
1.5KV Isolated

Single & Dual Output

DIL5



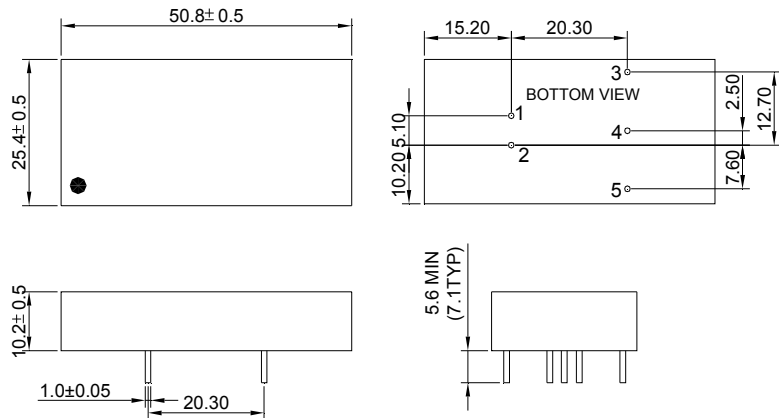
Temperature Derating Graph



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	Nickel Coated With Non-Conductive Base				
MTBF	MIL-HDBK-217F@25°C	1500000			Hours
Weight			31.7		g
Dimensions			50.8x25.4x10.2		mm

Markings and Dimensions



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

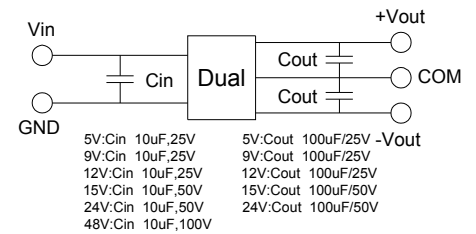
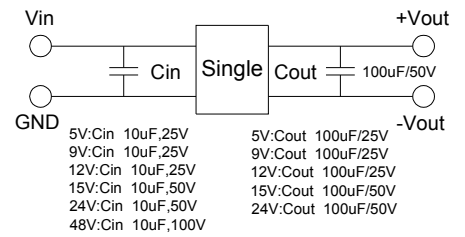
PIN Connection

PIN	1	2	3	4	5
Single	+Vin	-Vin	+Vout	NO PIN	-Vout
Dual	+Vin	-Vin	+Vout	COM	-Vout

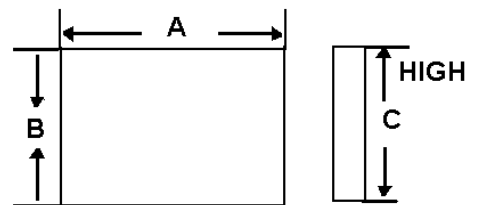
Part Number

60D - 05 S 05 C N
 A B C D E F
 A:Series
 B:Input Voltage
 C:Single(S) Dual(D)
 D:Output Voltage
 E:Types
 F:Package

Recommended Test Circuit



Packaging



Size(mm)		
A	B	C
54.00	50.30	30.00

FEATURES :

- 2:1Wide Input Voltage
- 3 Watt 24PIN DIL Package
- Efficiency To 80%
- 1500Vdc Isolation
- MTBF:>1,500,000 hrs
- Operating Temperature:-40°C TO +85°C

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

Part Number	Input Voltage	Output Voltage	Output Current	Efficiency
	Vdc	Vdc	mA	%TYP
68D-05S05CN	4.5-9	5	600	75
68D-05S12CN	4.5-9	12	250	80
68D-05S15CN	4.5-9	15	200	80
68D-12S05CN	9-18	5	600	75
68D-12S12CN	9-18	12	250	80
68D-12S15CN	9-18	15	200	80
68D-12D05CN	9-18	±5	±300	75
68D-12D12CN	9-18	±12	±125	75
68D-12D15CN	9-18	±15	±100	75
68D-24S05CN	18-36	5	600	75
68D-24S12CN	18-36	12	250	80
68D-24S15CN	18-36	15	200	80
68D-24D05CN	18-36	±5	±300	75
68D-24D12CN	18-36	±12	±125	80
68D-24D15CN	18-36	±15	±100	80
68D-48S05CN	36-72	5	600	75
68D-48S12CN	36-72	12	250	80
68D-48S15CN	36-72	15	200	80
68D-48D05CN	36-72	±5	±300	75
68D-48D12CN	36-72	±12	±125	80
68D-48D15CN	36-72	±15	±100	80

Input Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Types				2:1	
Filter	Capacitor				



DC-DC Converter

68D SERIES

3Watt 1.5KV Isolated

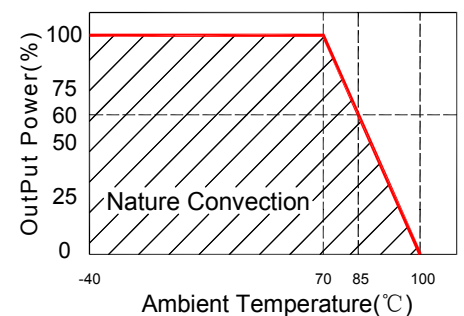
2 : 1 Input Voltage Range

Single & Dual Output

1.25" x 0.8"



Temperature Derating Graph



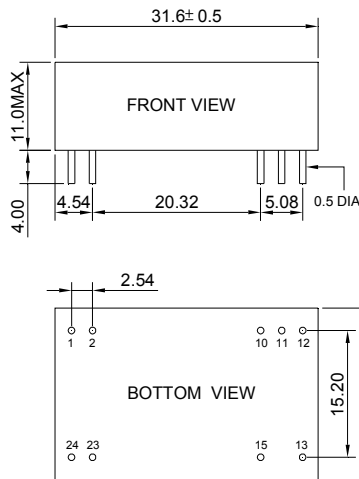
Output Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance				±2	%
Short Circuit Protection	Continuous				
Line Regulation				±0.5	%
Load Regulation	Single			±0.5	%
Load Regulation	Dual			±2.0	%
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			200		KHz
Operating Temperature		-40		85	°C
Humidity	Non Condensing			95	%
Cooling	Free air Convection				
Case material	Nickel Coated Copper With Non-Conductive Base				
Weight			16.2		g
Dimensions		31.60x20.10x11.0			mm

Markings and dimensions

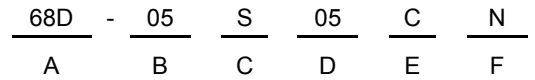


UNIT : mm Unless otherwise specified, all tolerances are±0.25

PIN Connection

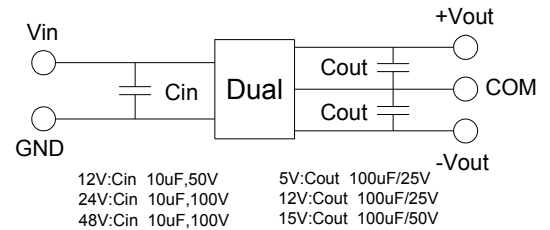
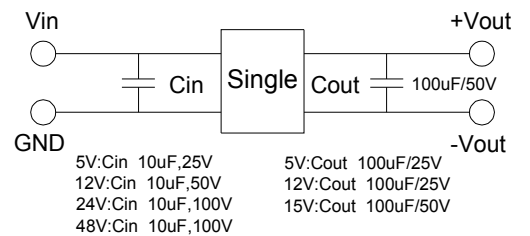
Pin	1.2	10.11	12	13	15	23.24
Single	+Vin	No Pin	-Vout	+Vout	No Pin	-Vin
Dual	+Vin	Com	No Pin	-Vout	+Vout	-Vin

Part Number

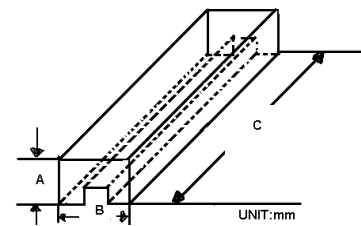


- A : Series
- B : Input Voltage
- C : Single(S);Dual(D)
- D : Output Voltage
- E : Types
- F : Package

Recommended Test Circuit



Packaging



Size(mm)		
A	B	C
18.71	23.00	5.22

FEATURES :

- 2:1Wide Input Voltage
- 3 Watt 24PIN DIL Package
- Efficiency To 80%
- 1500Vdc Isolation
- MTBF:>1,500,000 hrs
- Operating Temperature:-40°C TO +85°C



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

Part Number	Input Voltage	Output Voltage	Output Current	Efficiency
	Vdc	Vdc	mA	%TYP
68D1-05S05RNL	4.5-9	5	600	75
68D1-05S12RNL	4.5-9	12	250	77
68D1-05S15RNL	4.5-9	15	200	80
68D1-12S05RNL	9-18	5	600	75
68D1-12S12RNL	9-18	12	250	80
68D1-12S15RNL	9-18	15	200	80
68D1-12D05RNL	9-18	±5	±300	75
68D1-12D12RNL	9-18	±12	±125	75
68D1-12D15RNL	9-18	±15	±100	75
68D1-24S05RNL	18-36	5	600	78
68D1-24S12RNL	18-36	12	250	80
68D1-24S15RNL	18-36	15	200	80
68D1-24D05RNL	18-36	±5	±300	75
68D1-24D12RNL	18-36	±12	±125	80
68D1-24D15RNL	18-36	±15	±100	80
68D1-48S05RNL	36-72	5	600	78
68D1-48S12RNL	36-72	12	250	80
68D1-48S15RNL	36-72	15	200	80
68D1-48D05RNL	36-72	±5	±300	75
68D1-48D12RNL	36-72	±12	±125	80
68D1-48D15RNL	36-72	±15	±100	80

Input Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Types				2:1	
Filter	Capacitor				

DC-DC Converter

68D1 SERIES

3Watt 1.5KV Isolated

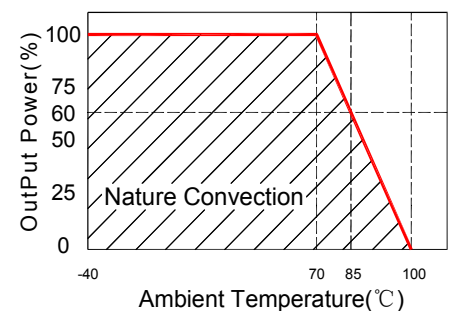
2 : 1 Input Voltage Range

Single & Dual Output

1.25" X 0.8"



Temperature Derating Graph



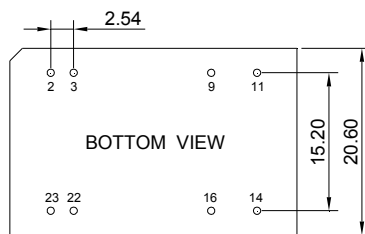
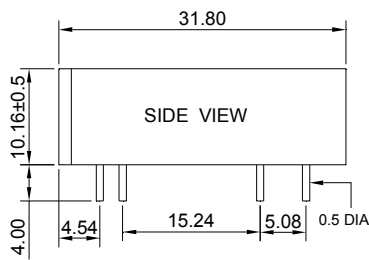
Output Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance				±2	%
Short Circuit Protection	Continuous				
Line Regulation				±0.5	%
Load Regulation	Single			±0.5	%
Load Regulation	Dual			±2.0	%
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			200		KHz
Operating Temperature		-40		85	°C
Humidity	Non Condensing			95	%
Cooling	Free air Convection				
Case material	Nickel Coated With Non-Conductive Base or Black Coated Copper With Non-Conductive Base				
Weight			16.2		g
Dimensions		31.80x20.60x10.16			mm

Markings and dimensions



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

PIN Connection

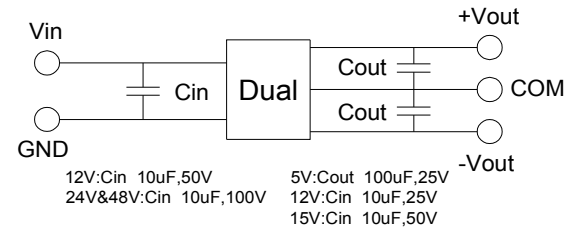
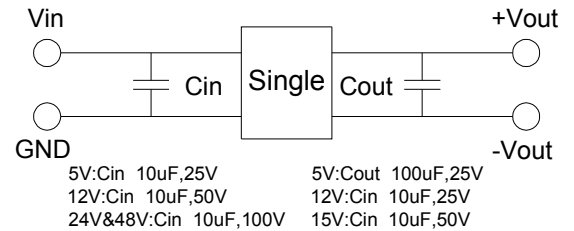
Pin	2.3	9	11	14	16	22.23
Single	-Vin	No Pin	NC	+Vout	-Vout	+Vin
Dual	-Vin	Com	-Vout	+Vout	Com	+Vin

Part Number

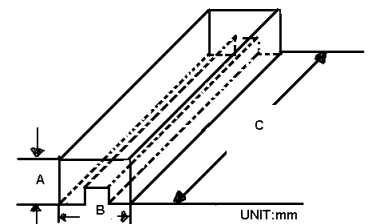
68D1 - 12 S 05 R NL
A B C D E F

A:Series
B:Input Voltage
C:Single(S)Dual(D)
D:Output Voltage
E:Regulated(R)
F:RoHS Version

Recommended Test Circuit



Packaging



Size(mm)		
A	B	C
18.71	23.00	522

FEATURES :

- 4:1 Wide Input Voltage
- 3 Watt 24PIN DIL Package
- Efficiency To 80%
- 1500Vdc Isolation
- MTBF:>1,500,000 hrs
- Operating Temperature:-40°C TO +85°C

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

Part Number	Input Voltage	Output Voltage	Output Current	Efficiency
	Vdc	Vdc	mA	%TYP
69D-24S05CN	9-36	5	600	75
69D-24S12CN	9-36	12	250	80
69D-24S15CN	9-36	15	200	75
69D-24D05CN	9-36	±5	±300	75
69D-24D12CN	9-36	±12	±125	75
69D-24D15CN	9-36	±15	±100	75
69D-48S05CN	18-72	5	600	75
69D-48S12CN	18-72	12	250	80
69D-48S15CN	18-72	15	200	75
69D-48D05CN	18-72	±5	±300	75
69D-48D12CN	18-72	±12	±125	75
69D-48D15CN	18-72	±15	±100	75

Input Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Types				4:1	
Filter	Capacitor				

Output Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance				±2	%
Short Circuit Protection	Continuous				
Line Regulation				±0.5	%
Load Regulation	Single			±0.5	%
Load Regulation	Dual			±2.0	%
Ripple & Noise	BW=DC To 20MHz			100	mVp-p
Transient response setting time	50% load step change		350		us



DC-DC Converter

69D SERIES

3Watt 1.5KV Isolated

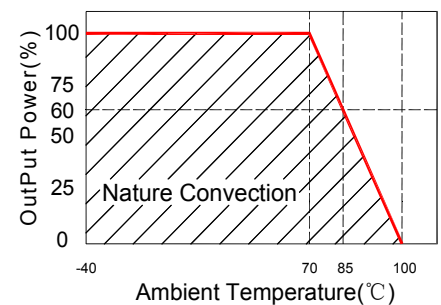
4 : 1 Input Voltage Range

Single & Dual Output

1.25" x 0.8"



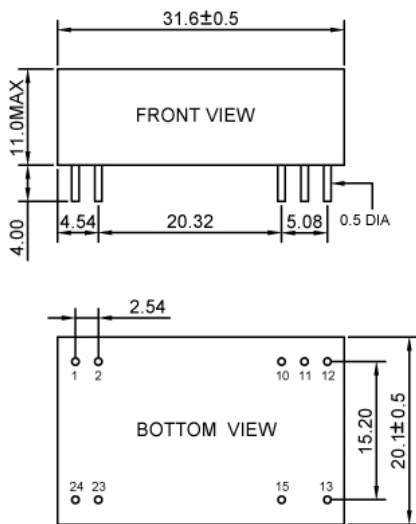
Temperature Derating Graph



General Specifications

Parameters	Conditions	Min	Typ	Max	Units
Isolation Resistance	500Vdc	1000			MΩ
Switching Frequency			200		KHz
Operating Temperature		-40		85	°C
Humidity	Non Condensing			95	%
Cooling	Free air Convection				
Case material	Nickel Coated Copper With Non-Conductive Base				
Weight			16.2		g
Dimensions		31.60x20.10x11.0			mm

Markings and dimensions



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

PIN Connection

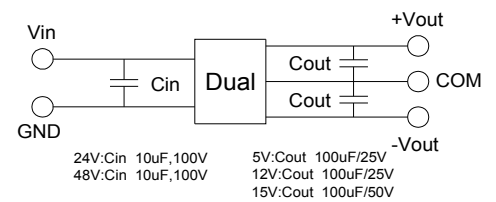
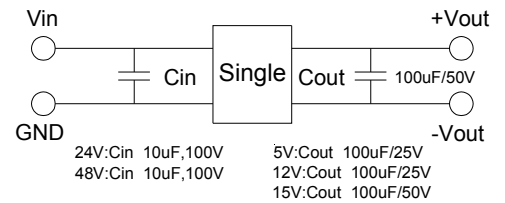
Pin	1,2	10,11	12	13	15	23,24
Single	+Vin	No Pin	-Vout	+Vout	No Pin	-Vin
Dual	+Vin	Com	No Pin	-Vout	+Vout	-Vin

Part Number

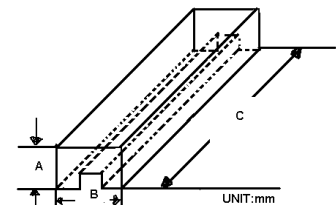
69D - 24 S 05 C N
 A B C D E F

- A : Series
- B : Input Voltage
- C : Single(S);Dual(D)
- D : Output Voltage
- E : Types
- F : Package

Recommended Test Circuit



Packaging



Size(mm)		
A	B	C
18.71	23.00	522

FEATURES :

- Up to 3 Watt Output Power
- 500Vdc Isolation
- Low Ripple and Noise
- Regulated Output Types
- MTBF:>1,500,000 hrs
- Operating Temperature:-40°C TO +85°C

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

Part Number	Input Voltage	Output Voltage	Output Current	Efficiency
	Vdc	Vdc	mA	%Typ
70D-05S05RNL	5	5	600	60
70D-05S12RNL	5	12	250	65
70D-05D12RNL	5	±12	±125	65
70D-12S12RNL	12	12	250	65
70D-12S15RNL	12	15	200	65
70D-12D15RNL	12	±15	±100	65
70D-24S05RNL	24	5	600	60
70D-24D12RNL	24	±12	±125	65
70D-24D15RNL	24	±15	±100	65
70D-48S12RNL	48	12	250	65
70D-48D12RNL	48	±12	±125	65
70D-48D15RNL	48	±15	±100	65

Input Specifications

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

Output Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance				±5	%
Short Circuit Protection	Continuous				
Line Regulation	Regulated			±0.3	%
Load Regulation	Regulated			±0.5	%
Ripple & Noise	BW=DC To 20MHz			50	mVp-p
Line Regulation	Unregulated (For 1% of Vin)		±1.2		%
Load Regulation	Unregulated (20% To 100% F.L)			±10	%
Transient response setting time	50% load step change		350		us



DC-DC Converter

70D SERIES

3Watt

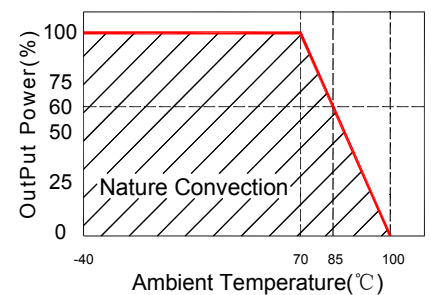
0.5KV Isolated

Single & Dual Output

DIL5



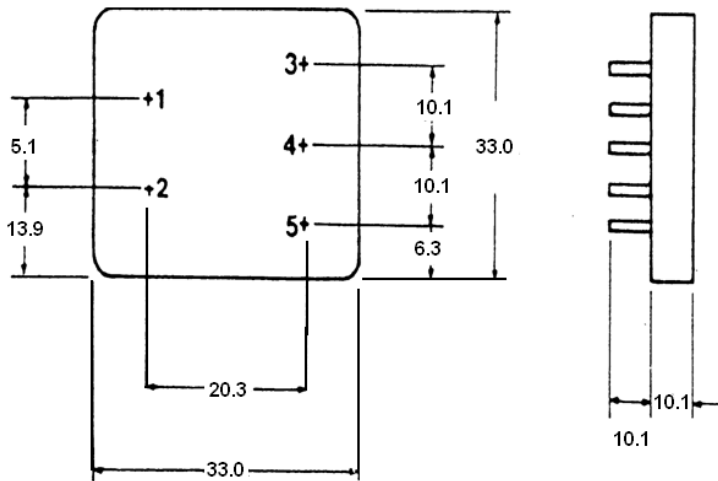
Temperature Derating Graph



General Specifications

Parameters	Conditions	Min	Typ	Max	Units
Isolation Resistance	500Vdc	1000			MΩ
Switching Frequency			20		KHz
Operating Temperature		-40		+85	°C
Humidity	Non Condensing			95	%
Cooling	Free air Convection				
Case material	DAP				
Weight			55		g
Dimensions			33.0x33.0x10.1		mm

Markings and dimensions



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

PIN Connection

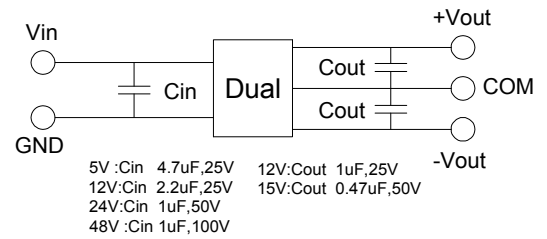
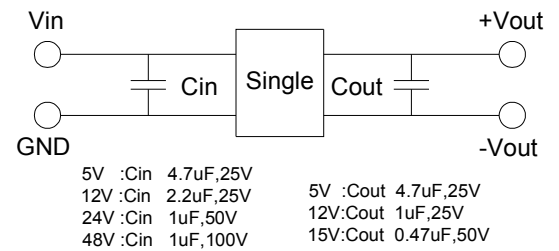
PIN	1	2	3	4	5
Single	+Vin	-Vin	No Pin	+Vout	-Vout
Dual	+Vin	-Vin	+Vout	COM	-Vout

Part Number

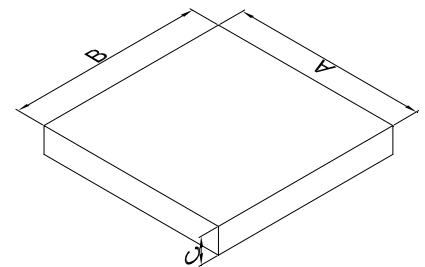
70D - 05 S 05 R NL
A B C D E F

A:Series
B:Input Voltage
C:Single(S)Dual(D)
D:Output Voltage
E:Regulated(R)
F:RoHS Version

Recommended Test Circuit



Packaging



Size(mm)		
A	B	C
210.00	210.00	30.00

FEATURES :

- 2:1Wide Input Voltage
- 3 Watt 5PIN DIL Package
- Efficiency To 85%
- 1500Vdc Isolation
- MTBF:>1,500,000 hrs
- Operating Temperature:-40°C TO +85°C

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

Part Number	Input Voltage	Output Voltage	Output Current	Efficiency
	Vdc	Vdc	mA	%TYP
76D-05S05C	4.5-9	5	600	75
76D-05S12C	4.5-9	12	250	77
76D-05S15C	4.5-9	15	200	77
76D-12S05C	9-18	5	600	75
76D-12S12C	9-18	12	250	80
76D-12S15C	9-18	15	200	80
76D-12D05C	9-18	±5	±300	75
76D-12D12C	9-18	±12	±125	82
76D-12D15C	9-18	±15	±100	82
76D-24S05C	18-36	5	600	75
76D-24S12C	18-36	12	250	85
76D-24S15C	18-36	15	200	85
76D-24D05C	18-36	±5	±300	75
76D-24D12C	18-36	±12	±125	85
76D-24D15C	18-36	±15	±100	85
76D-48S05C	36-75	5	600	78
76D-48S12C	36-75	12	250	85
76D-48S15C	36-75	15	200	85
76D-48D05C	36-75	±5	±300	75
76D-48D12C	36-75	±12	±125	85
76D-48D15C	36-75	±15	±100	85

Input Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Types				2:1	
Filter	Capacitor				



DC-DC Converter

76D-3W SERIES

3Watt 1.5KV Isolated

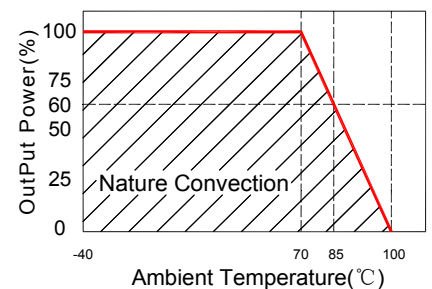
2 : 1 Input Voltage Range

Single & Dual Output

1" x 1"



Temperature Derating Graph



Output Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance				±2	%
Short Circuit Protection	Continuous				
Line Regulation				±0.5	%
Load Regulation	Single (F.L To 10% Load)			±0.8	%
Load Regulation	Dual (F.L To 10% Load)			±1.0	%
Ripple & Noise	BW=DC To 20MHz			100	mVp-p
Transient response setting time	50% load step change		350		us

General Specifications

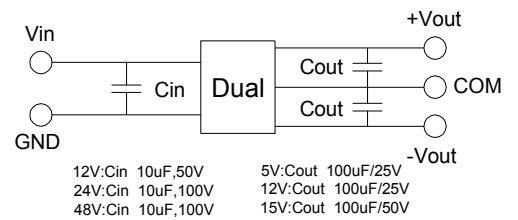
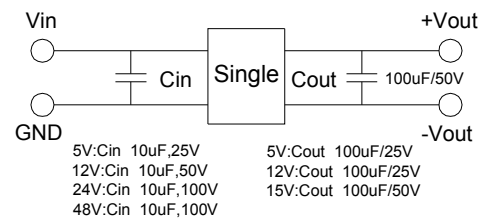
Parameters	Conditions	Min	Typ	Max	Units
Isolation Resistance	500Vdc	1000			MΩ
Switching Frequency			200		KHz
Operating Temperature		-40		85	°C
Humidity	Non Condensing			95	%
Cooling	Free air Convection				
Case material	Nickel Coated Copper With Non-Conductive Base				
Weight			15.0		g
Dimensions			25.4x25.4x10.6		mm

Part Number

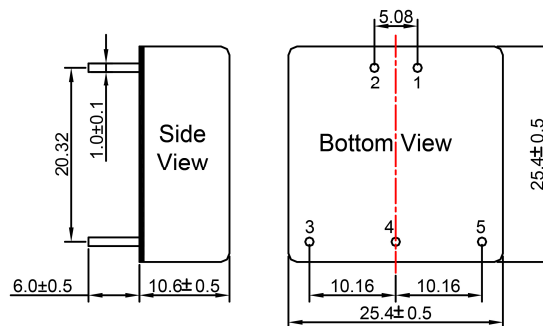
76D - 12 D 05 C
A B C D E

A:Series
B:Input Voltage
C:Dual Output
D:Output Voltage
E:Types

Recommended Test Circuit



Markings and dimensions



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

PIN Connection

Pin	1	2	3	4	5
Single	+Vin	-Vin	-Vout	No Pin	+Vout
Dual	+Vin	-Vin	-Vout	COM	+Vout