

MMT

A decorative graphic consisting of several overlapping, wavy bands of blue and light blue, creating a sense of motion and depth, positioned horizontally across the upper portion of the page.

DC/DC CONVERTER

A decorative graphic featuring a cluster of vibrant green leaves with water droplets on the left side, and several flowing, ribbon-like green shapes that sweep across the bottom and right side of the page, creating a dynamic and organic feel.

6 Watt

2019

<http://www.mmtmachrone.com>

FEATURES :

- 6W SIP8 Package
- 2:1 Wide Input Voltages Range
- 100% Burned In
- High Efficiency Up To 88%
- Customized Solutions Available
- Remote Control: On/Off
- UL94V-0 Package Material
- RoHS Compliant
- Operating Temperature From -40°C To +85°C
- 3 Years Warranty



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

Part Number	Input Voltage Range	Nominal Input Voltage	Output Voltage Range	Output Current	Efficiency
	Vdc	Vdc	Vdc	mA	%TYP
27D-12S03R6W	9-18	12	3.3	1500	84
27D-12S05R6W	9-18		5	1200	85
27D-12S09R6W	9-18		9	666	86
27D-12S12R6W	9-18		12	500	87
27D-12S15R6W	9-18		15	400	88
27D-12S24R6W	9-18		24	250	88
27D-24S03R6W	18-36	24	3.3	1500	84
27D-24S05R6W	18-36		5	1200	85
27D-24S09R6W	18-36		9	666	86
27D-24S12R6W	18-36		12	500	87
27D-24S15R6W	18-36		15	400	88
27D-24S24R6W	18-36		24	250	88
27D-48S03R6W	36-72	48	3.3	1500	84
27D-48S05R6W	36-72		5	1200	85
27D-48S09R6W	36-72		9	666	86
27D-48S12R6W	36-72		12	500	87
27D-48S15R6W	36-72		15	400	88
27D-48S24R6W	36-72		24	250	88
27D-12D05R6W	9-18	12	±5	±600	85
27D-12D12R6W	9-18		±12	±250	87
27D-12D15R6W	9-18		±15	±200	87
27D-24D05R6W	18-36	24	±5	±600	85
27D-24D12R6W	18-36		±12	±250	87
27D-24D15R6W	18-36		±15	±200	87
27D-48D05R6W	36-72	48	±5	±600	85
27D-48D12R6W	36-72		±12	±250	87
27D-48D15R6W	36-72		±15	±200	87

Input Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Types	Vo, Io Nom			2:1	
Input current at no load (Nominal input voltage)	12V models		60		mA
	24V models		30		
	48V models		15		
Filter	Capacitor				

DC-DC Converter

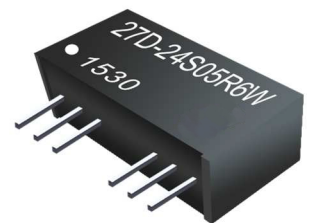
27D-6W SERIES

6Watt 1.5KV Isolated

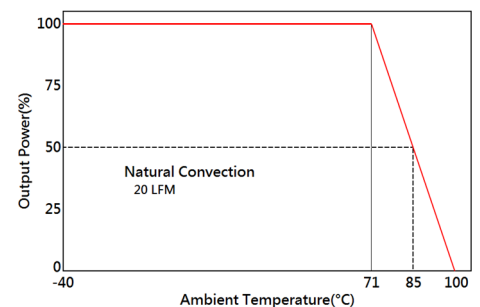
2 : 1 Input Voltage Range

Single & Dual Output

SIP8



Temperature Derating Graph



Output Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance	100% full load			±2	%
Short Circuit Protection	Continuous, Auto-Recovery				
Line Regulation				±0.5	%
Load Regulation	Single output models Dual output models			±0.5 ±5	%
Ripple & Noise	Output:3V-10V TYPES BW=DC To 20MHz			100	mVp-p
Ripple & Noise	Output>10V TYPES BW=DC To 20MHz			1% of Vout	mVp-p
Transient response setting time	50% load step change		350		us

General Specifications

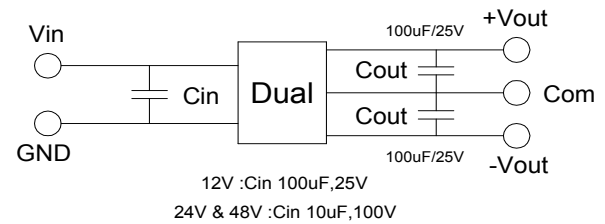
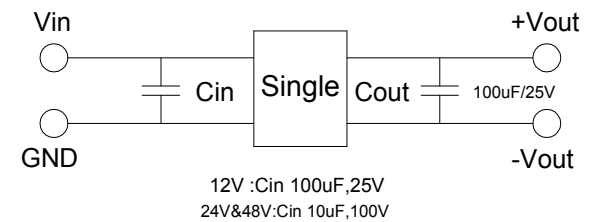
Parameters	Conditions	Min	Typ	Max	Units
Isolation Voltage			1500		Vdc
Isolation Resistance	500Vdc	1000			MΩ
Switching Frequency	Full load, nominal input		500		KHz
Operating Temperature		-40		85	°C
Storage Temperature		-55		125	°C
Humidity	Non Condensing			95	%
Cooling	Natural Convection (20LFM)				
Case material	DAP				
MTBF	MIL-HDBK-217F @25°C	1500000			Hours
Weight			4.5		g
Dimensions			21.8x9.2x11.1		mm

Part Number

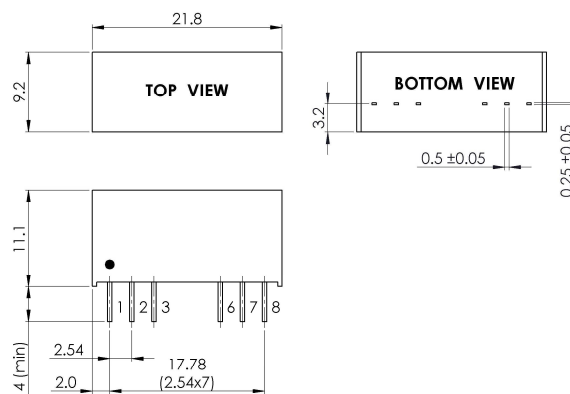
27D- 24 S 05 R 6W
A B C D E F

- A: Series
- B: Input Voltage
- C: Single Output
- D: Output Voltage
- E: Regulated(R)
- F: Watt

Recommended Test Circuit



Markings and dimensions



Unit : mm
Tolerance : XX.X ± 0.5 , XX.XX ± 0.25

PIN Connection

Pin	1	2	3	6	7	8
Single	-Vin	+Vin	Ctrl	+Vout	-Vout	NC
Dual	-Vin	+Vin	Ctrl	+Vout	COM	-Vout

FEATURES :

- 6W SIP8 Package
- 4:1 Wide Input Voltages Range
- High Efficiency Up To 88%
- Customized Solutions Available
- Remote Control: On/Off
- Operating Temperature From -40°C To +85°C
- UL94V-0 Package Material
- EMC Standard of EMI EN55032:2012+AC:2013 (Class B) Approved
- EMC Standard of EMS EN55024:2010 Approved



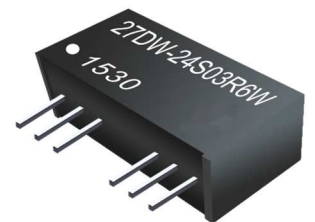
Specifications typical at TA=25°C, nominal input voltage and rated output current unless otherwise specified

Part Number	Input Voltage Range	Nominal Input Voltage	Output Voltage Range	Output Current	Efficiency
	Vdc	Vdc	Vdc	mA	%TYP
27DW-24S03R6W	9-36	24	3.3	1500	81
27DW-24S05R6W	9-36		5	1200	84
27DW-24S09R6W	9-36		9	666	86
27DW-24S12R6W	9-36		12	500	87
27DW-24S15R6W	9-36		15	400	88
27DW-24S24R6W	9-36		24	250	87
27DW-48S03R6W	18-72	48	3.3	1500	81
27DW-48S05R6W	18-72		5	1200	84
27DW-48S09R6W	18-72		9	666	86
27DW-48S12R6W	18-72		12	500	87
27DW-48S15R6W	18-72		15	400	87
27DW-48S24R6W	18-72		24	250	87
27DW-24D05R6W	9-36	24	±5	±600	84
27DW-24D12R6W	9-36		±12	±250	87
27DW-24D15R6W	9-36		±15	±200	87
27DW-48D05R6W	18-72	48	±5	±600	84
27DW-48D12R6W	18-72		±12	±250	87
27DW-48D15R6W	18-72		±15	±200	87

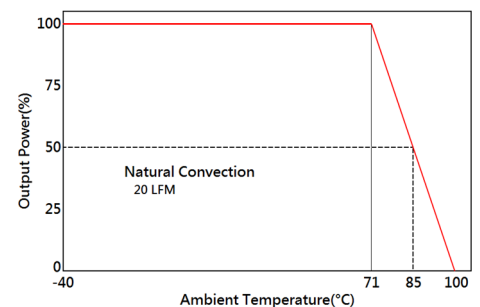
DC-DC Converter

27DW-6W SERIES

6Watt 1.5KV Isolated
4 : 1 Input Voltage Range
Single & Dual Output
SIP8



Temperature Derating Graph



Input Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Types				4:1	
Input current at no load (Nominal input voltage)	24V models 48V models		30 15		mA
Filter	Capacitor				

Output Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance	100% full load			±2	%
Short Circuit Protection	Continuous, Auto-Recovery				
Line Regulation				±0.5	%
Load Regulation	Single output models Dual output models			±0.5 ±5	%
Ripple & Noise	Output:3V-10V TYPES BW=DC To 20MHz			100	mVp-p
Ripple & Noise	Output>10V TYPES BW=DC To 20MHz			1% of Vout	mVp-p
Transient response setting time	50% load step change		350		us

General Specifications

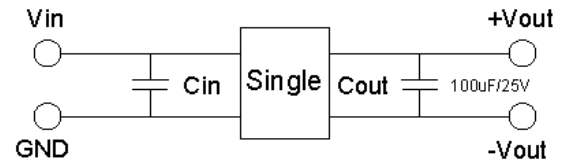
Parameters	Conditions	Min	Typ	Max	Units
Isolation Voltage			1500		Vdc
Isolation Resistance	500Vdc	1000			MΩ
Switching Frequency	Full load, nominal input		500		KHz
Operating Temperature		-40		85	°C
Storage Temperature		-55		125	°C
Humidity	Non Condensing			95	%
Cooling	Natural Convection (20LFM)				
Case material	DAP				
MTBF	MIL-HDBK-217F @25°C	1500000			Hours
Weight			4.5		g
Dimensions			21.8x9.2x11.1		mm

Part Number

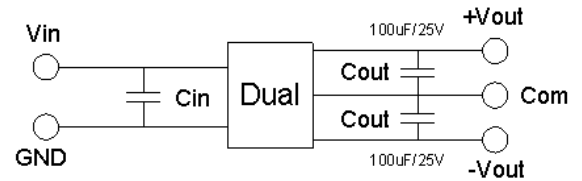
27DW - 24 S 05 R 6W
A B C D E F

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

Recommended Test Circuit

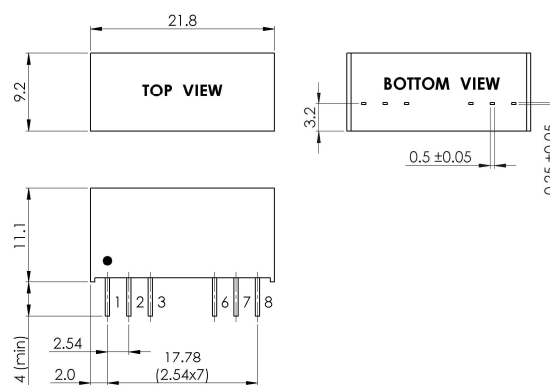


24V&48V: Cin 10uF,100V



24V & 48V :Cin 10uF,100V

Markings and dimensions



Unit : mm
Tolerance : XX.X ± 0.5 , XX.XX ± 0.25

PIN Connection

Pin	1	2	3	6	7	8
Single	-Vin	+Vin	Ctrl	+Vout	-Vout	NC
Dual	-Vin	+Vin	Ctrl	+Vout	COM	-Vout

FEATURES :

- 4:1 Wide Input Voltage.
- 6 Watt 24PIN 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	Input Current		Efficiency
				No Load	Full Load	
	Vdc	Vdc	mA	mA	mA	%TYP
75DW-24S05R6W	9-36	5	1200	6.5	313	80
75DW-24S12R6W	9-36	12	500	6.5	294	85
75DW-24S15R6W	9-36	15	400	6.5	294	85
75DW-24S24R6W	9-36	24	250	6.5	294	85
75DW-24D05R6W	9-36	±5	±600	8	313	80
75DW-24D12R6W	9-36	±12	±250	8	298	84
75DW-24D15R6W	9-36	±15	±200	8	298	84
75DW-48S05R6W	18-75	5	1200	3	160	78
75DW-48S12R6W	18-75	12	500	3	156	80
75DW-48S15R6W	18-75	15	400	3	156	80
75DW-48S24R6W	18-75	24	250	3	156	80
75DW-48D05R6W	18-75	±5	±600	4	160	78
75DW-48D12R6W	18-75	±12	±250	4	156	80
75DW-48D15R6W	18-75	±15	±200	4	156	80

DC-DC Converter

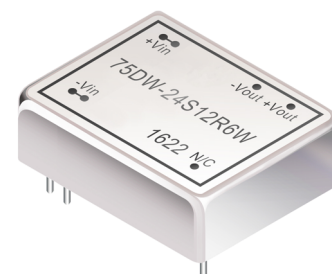
75DW-6W SERIES

6Watt 1.5KV Isolated

4 : 1 Input Voltage Range

Single & Dual Output

DIL



Input Specifications

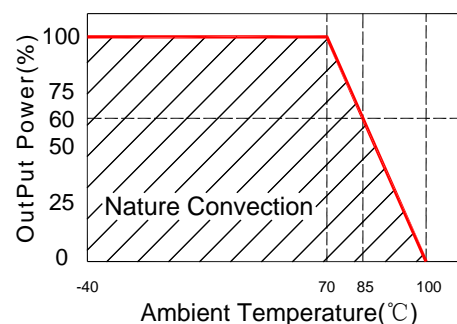
Parameters	Conditions	Min	Typ	Max	Units
Voltage Types				4:1	
Filter	Capacitor				

Output Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance				±2	%
Short Circuit Protection	Continuous				
Line Regulation				±0.5	%
Load Regulation	Single (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



Temperature Derating Graph



General Specifications

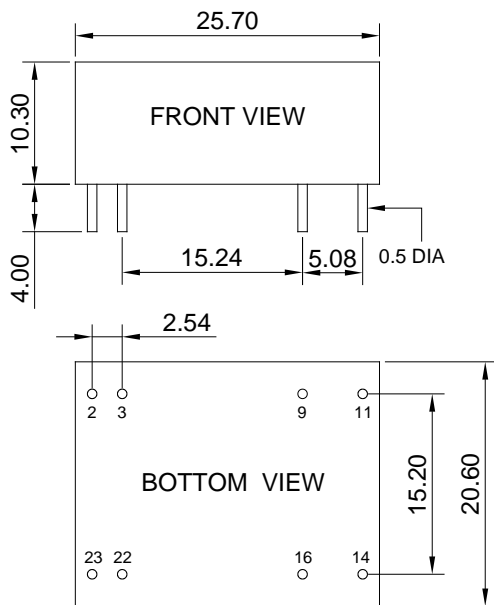
Parameters	Conditions	Min	Typ	Max	Units
Isolation Resistance	500Vdc	1000			MΩ
Switching Frequency			200		KHz
Operating Temperature		-40		85	°C
Humidity	Non Condensing			95	%
Cooling	Free air Convection				
Case material	Nickel Coated Copper With Non-Conductive Base				
Weight			11.8		g
Dimensions		25.7x20.6x10.3			mm

Part Number

75DW - 24 S 12 R 6W
 A B C D E F

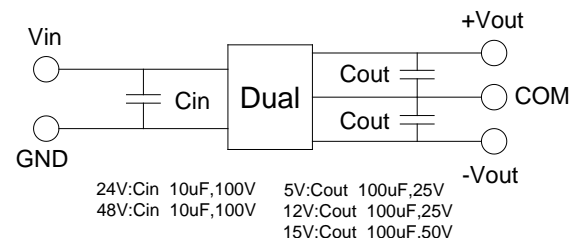
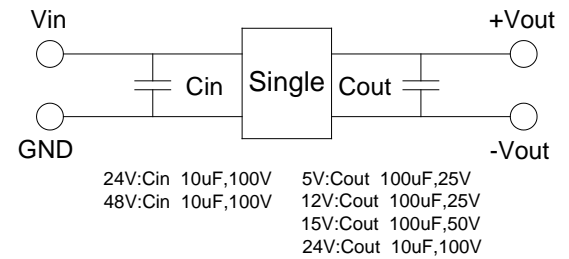
- A:Series
- B:Input Voltage
- C:Single Output
- D:Output Voltage
- E:Regulated(R)
- F:Output Power

Markings and dimensions



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

Recommended Test Circuit



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

FEATURES :

- 2:1 Wide Input Voltage
- 6 Watt 5PIN DIL Package
- Efficiency To 87%
- 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	Input Current		Efficiency
				NO LOAD	FULL LOAD	
	Vdc	Vdc	mA	mA	mA	%TYP
76D-12S05R6W	9-18	5	1200	7.5	625	80
76D-12S12R6W	9-18	12	500	7.5	625	80
76D-12S15R6W	9-18	15	400	7.5	625	80
76D-12D05R6W	9-18	±5	±600	12	625	80
76D-12D12R6W	9-18	±12	±250	12	600	83
76D-12D15R6W	9-18	±15	±200	12	600	83
76D-24S05C6W	18-36	5	1200	5	305	82
76D-24S12C6W	18-36	12	500	5	287	87
76D-24S15C6W	18-36	15	400	5	287	87
76D-24S24C6W	18-36	24	250	5	287	87
76D-24D05C6W	18-36	±5	±600	7.5	310	80
76D-24D12C6W	18-36	±12	±250	7.5	295	85
76D-24D15C6W	18-36	±15	±200	7.5	295	85
76D-48S05C6W	36-75	5	1200	2	155	80
76D-48S12C6W	36-75	12	500	2	145	85
76D-48S15C6W	36-75	15	400	2	145	85
76D-48S24C6W	36-75	24	250	2	145	85
76D-48D05C6W	36-75	±5	±600	3	155	80
76D-48D12C6W	36-75	±12	±250	3	145	85

Input Specifications

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



DC-DC Converter

76D-6W SERIES

6Watt 1.5KV Isolated

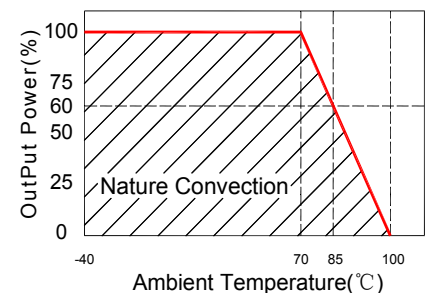
2 : 1 Input Voltage Range

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

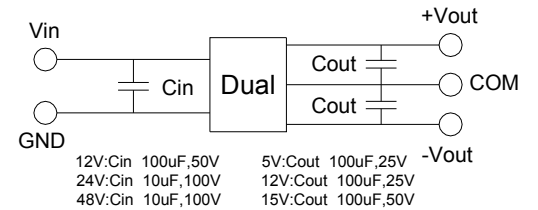
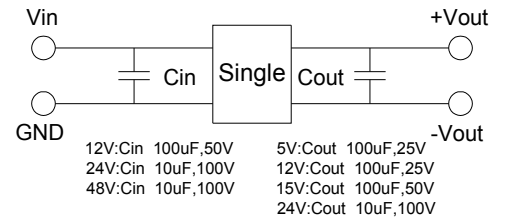
General Specifications

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

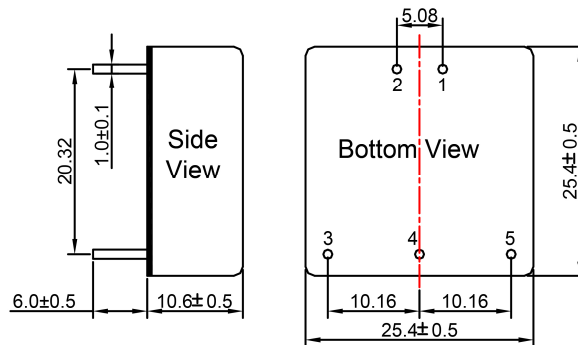
Part Number

76D - 12 S 05 R/C 6W
 A B C D E F
 A:Series
 B:Input Voltage
 C:Single Output
 D:Output Voltage
 E:Regulated(R/C)
 F:Output Power

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

FEATURES :

- Up to 6 Watt Output Power
- 5 Pin Package
- Low Ripple and Noise
- Regulated Output Types
- 500Vdc 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
82D-05S05RNNL	5	5	1200	60
82D-05S12RNNL	5	12	500	65
82D-05D15RNNL	5	±15	±200	65
82D-12S12RNNL	12	12	500	65
82D-12S15RNNL	12	15	400	65
82D-12D12RNNL	12	±12	±250	65
82D-24S05RNNL	24	5	1200	60
82D-24S15RNNL	24	15	400	65
82D-24D12RNNL	24	±12	±250	65
82D-48S15RNNL	48	15	400	65
82D-48D12RNNL	48	±12	±250	65
82D-48D15RNNL	48	±15	±200	65

Input Specifications

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

Output Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance				±5	%
Short Circuit Protection	Continuous				
Line Regulation				±0.3	%
Load Regulation				±0.5	%
Ripple & Noise	BW=DC To 20MHz			50	mVp-p
Transient response setting time	50% load step change		350		us

DC-DC Converter

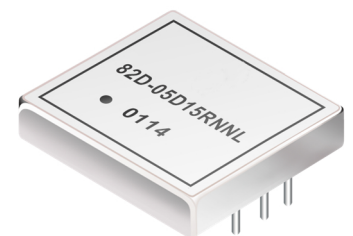
82D SERIES

6Watt

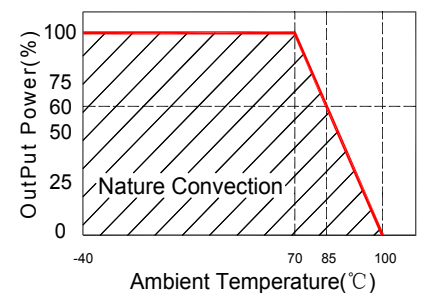
0.5KV Isolated

Single & Dual Output

DIL5



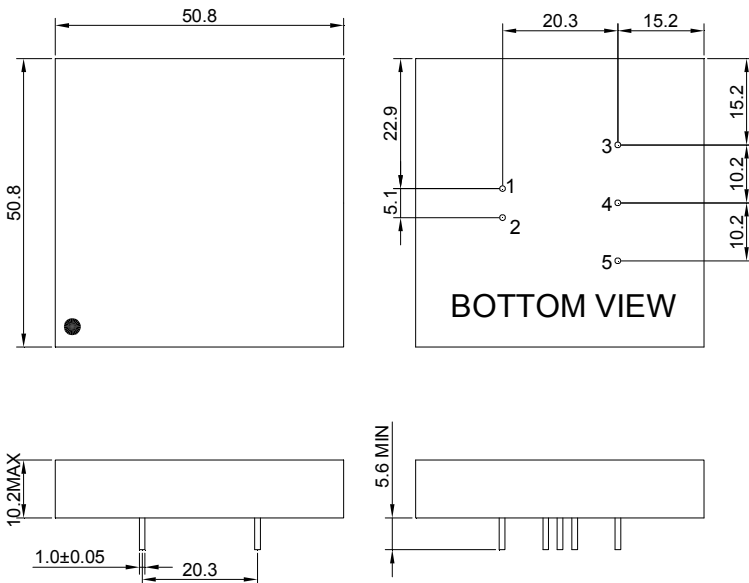
Temperature Derating Graph



General Specifications

Parameters	Conditions	Min	Typ	Max	Units
Isolation Resistance	500Vdc	1000			MΩ
Switching Frequency			50		KHz
Operating Temperature		-40		+85	°C
Humidity	Non Condensing			95	%
Cooling	Free air Convection				
Case material	Nickel Coated With Non-Conductive Base				
Weight			57		g
Dimensions		50.8x50.8x10.2			mm

Markings and dimensions



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

PIN Connection

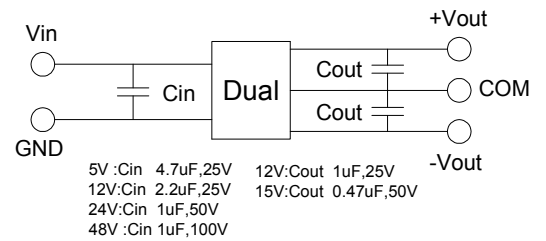
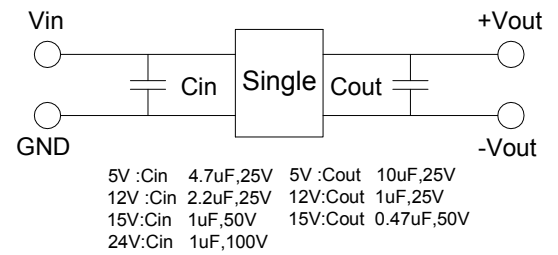
PIN	1	2	3	4	5
Single	+Vin	-Vin	+Vout	NO PIN	-Vout
Dual	+Vin	-Vin	+Vout	COM	-Vout

Part Number

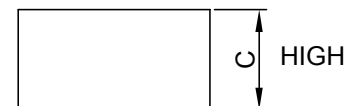
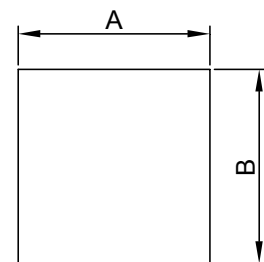
82D - 05 D 12 R N NL
A B C D E F G

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

Recommended Test Circuit



Packaging



Size(mm)		
A	B	C
51.50	52.30	27.00