

66D SERIES WIDE RANGE DC/DC CONVERTER 5 WATT SWITCHING REGULATOR

FEATURES

- Input voltage range: 10 – 36 VDC
- 50.8 × 25.4 × 10.2 mm package
- 100% burn-in
- Case material: metal, black coating



GENERAL SPECIFICATIONS

- Output ripple & noise (no load) — 150mVp-p(20KHz B.W.)
- Output ripple & noise (full load) — 75mVp-p(20KHz B.W.)
- Isolation resistance — 100MΩ Min @ 500VDC
- Short circuit protection — 2.5A
- Output current limit — 1.5A

ELECTRICAL SPECIFICATIONS

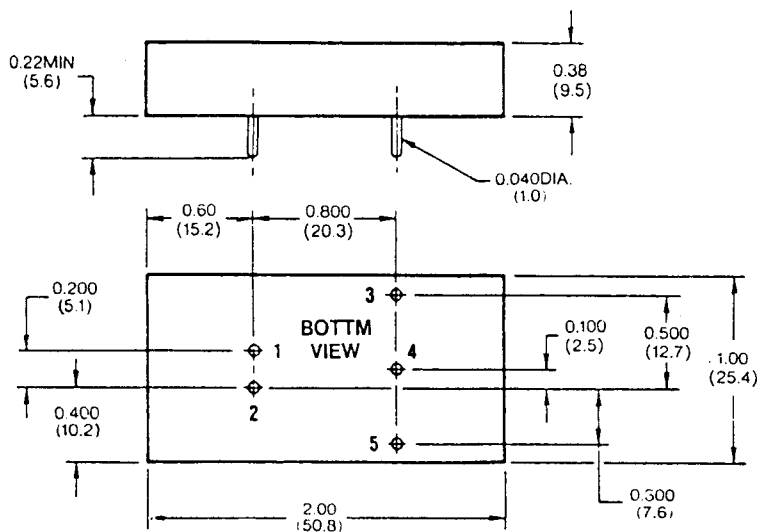
- Input voltage range — 10 – 36VDC
- Output voltage tolerance — ±2%, -1%
- Line regulation — ± 1%
- Load regulation — ±1%

(typical at nominal input, rated load and 25°C unless otherwise specified.)

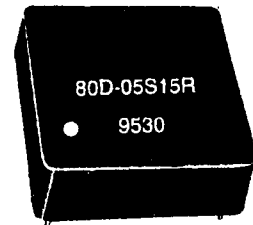
Part Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Output Current (% Typ.)
66D-24S05R	10 – 36	5	1000	80
66D-24S09R		9	555	80
66D-24S12R		12	416	80
66D-24S15R		15	333	80

S: Single Output D: Dual Output

MARKINGS AND DIMENSIONS



80D SERIES 5 WATT REGULATED DC/DC CONVERTERS



FEATURES

- Up to 5 watts output power
- 2" x 2" package
- 500 VDC isolation
- Regulated output types

GENERAL SPECIFICATIONS

- Output ripple & noise — 50mVp-p(20KHz B.W.)
- Isolation resistance — 100MΩmin @ 500VDC
- Switching frequency — 20KHz min
- Operating temperature — 0° C to 70° C
- Efficiency (regulated) — 50% typ.
- Short circuit protection — continuous

ELECTRICAL SPECIFICATIONS

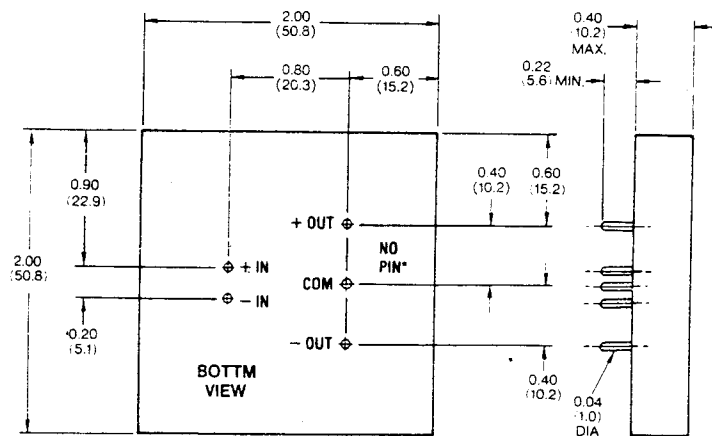
- Input voltage range — ± 10%
- Output voltage tolerance — ± 5%
- Line regulation — ± 0.3%
- Load Regulation — ± 0.5%

(typical at nominal input, rated load and 25°C unless otherwise specified.)

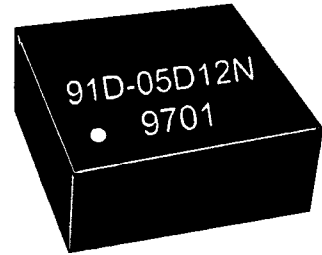
Part Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency (%Typ.)
80D-05S05R	5	5	1000	50
80D-05S12R	5	12	470	60
80D-05D15R	5	± 15	± 190	60
80D-12S12R	12	12	470	60
80D-12S15R	12	15	400	60
80D-12D12R	12	± 12	± 230	60
80D-24S05R	24	5	1000	50
80D-24S15R	24	15	400	60
80D-24D12R	24	± 12	± 230	60
80D-28S15R	28	15	400	60
80D-28D12R	28	± 12	± 230	60
80D-28D15R	28	± 15	± 190	60

S: Single Output D: Dual Output

MARKINGS AND DIMENSIONS



91D SERIES ISOLATED 5 WATT SINGLE AND DUAL OUTPUT



FEATURES

- Industry standard pinout
- Single or dual output
- Low profile package
- Efficiency to 85%
- 1000 VDC isolation

GENERAL SPECIFICATIONS

- Input reflected ripple — 200mVp-p(20KHz B.W.)
- Output ripple & noise — 125mVp-p(20KHz B.W.)
- Isolation resistance — 1000MΩ Min @ 1000VDC
- Efficiency (at full load) — 85% typ., 75% min.
- Short circuit protection — 1 second max.
- Operating temperature — 0°C to 70°C

ELECTRICAL SPECIFICATIONS

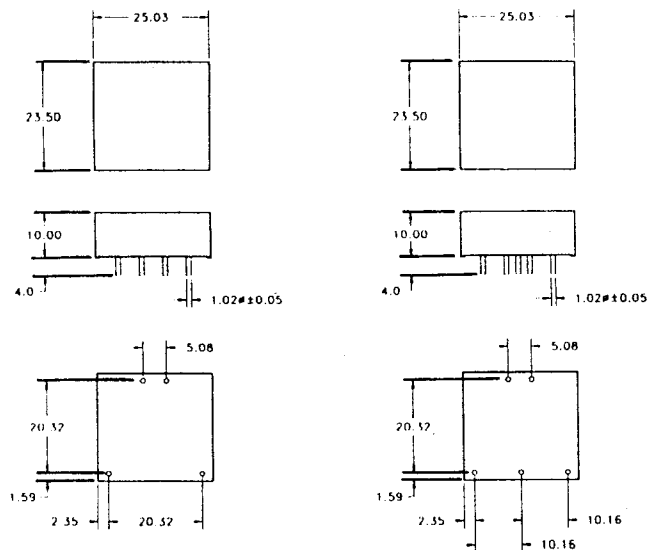
- Input voltage range — ± 10%
- Output voltage tolerance — ± 5%
- Line regulation (10% to 100% full load) — ± 1.1%
- Load regulation (10% to 100% full load)
 - 5V output types: 7% typ., 12% max.
 - 12V and 15V types: 5% typ., 7.5% max.

(typical at nominal input, rated load and 25°C unless otherwise specified.)

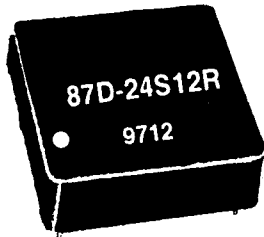
Part Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency (mA Typ.)
91D-05S05N	5	5	1000	75
91D-05S12N	5	12	417	80
91D-05S15N	5	15	330	85
91D-05D05N	5	± 5	± 500	75
91D-05D12N	5	± 12	± 208	80
91D-05D15N	5	± 15	± 167	85
91D-12S05N	12	5	1000	75
91D-12S12N	12	12	417	80
91D-12S15N	12	15	330	85
91D-12D05N	12	± 5	± 500	75
91D-12D12N	12	± 12	± 208	80
91D-12D15N	12	± 15	± 167	85

S: Single Output D: Dual Output

MARKINGS AND DIMENSIONS



87D SERIES WIDE INPUT RANGE DC/DC CONVERTER MOSFET 15 WATT



FEATURES

- 15 watts
- Singles, duals and triples
- 100KHz fixed frequency
- Surface mount internal construction
- Six-sided shielding
- Wide 4:1 input range
- 1% Line/2% load regulation (main output)
- Small size (2.0" x 2.0" x 0.40")

ELECTRICAL SPECIFICATIONS

Output
 Voltage tolerance — ± 1% (output 1) (factory set point) — ± 3% (output 2 and output 3)
 Line regulation — 1% (output 1) — 4% (output 2 and output 3)
 Load regulation — 2% (output 1) — 6% (output 2 and output 3)
 Noise/Ripple — 75mVp-p (output 1) — 100mVp-p (output 2 and output 3 under specified conditions)
 Output voltage — ± 10 of nominal
 Adjust range — single and dual output models only
 Output voltage projection — zener clamp
 Short circuit — power cycling

Output

Input Range — 9 to 36VDC
 20 to 72VDC
 Efficiency — 80% to 85% typ.
 Input ripple current — < 100mA

Control

Voltage — 90 to 110% V_o
Adjust input using external resistor or trim pot
 Enable — TTL compatible
on = 2.5 to 5.5VDC or open circuit
off = 0 to 0.8VDC

ENVIRONMENTAL

Operating temp. (ambient):
 -25 to +71°C (no derating)
 Storage temp.: -25 to +105°C
 Cooling method: convection

(typical at nominal input, rated load and 25°C unless otherwise specified.)

Part Number	Input Voltage	Output 1 Voltage	Output 2 Voltage	Output 3 Voltage
87D-24S05R	9 – 36V	5V @ 3A		
87D-24S12R	9 – 36V	12V @ 1.25A		
87D-24S12R	9 – 36V	15V @ 1A		
87D-24D12R	9 – 36V		12V @ 0.625A	-12V @ 0.625A
87D-24D15R	9 – 36V		12V @ 0.5A	-15V @ 0.5A
87D-24S05RT12R	9 – 36V	5V @ 1.5A	12V @ 0.31A	-12V @ 0.31A
87D-24S05RT15R	9 – 36V	5V @ 1.5A	15V @ 0.25A	-15V @ 0.25A
87D-48S05R	20 – 72V	5V @ 3A		
87D-48S12R	20 – 72V	12V @ 1.25A		
87D-48S15R	20 – 72V	15V @ 1A		
87D-48D12R	20 – 72V		12V @ 0.625A	-12V @ 0.625A
87D-48D15R	20 – 72V		15V @ 0.5A	-15V @ 0.5A
87D-48S05RT12R	20 – 72V	5V @ 1.5A	12V @ 0.31A	-12V @ 0.31A
87D-48S05RT15R	20 – 72V	5V @ 1.5A	15V @ 0.25A	-15V @ 0.25A

S: Single Output D: Dual Output

MARKINGS AND DIMENSIONS

