DUP SERIES

DC / DC Single & Dual Output: 1 Watt

AMTEX ELECTRONICS PTY LTD
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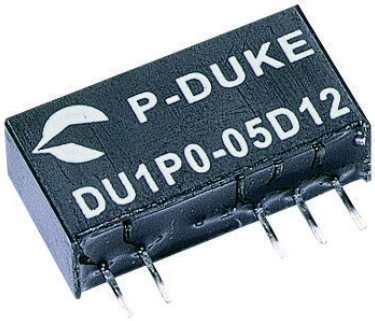
"DC Power Solutions...not just components"



Features

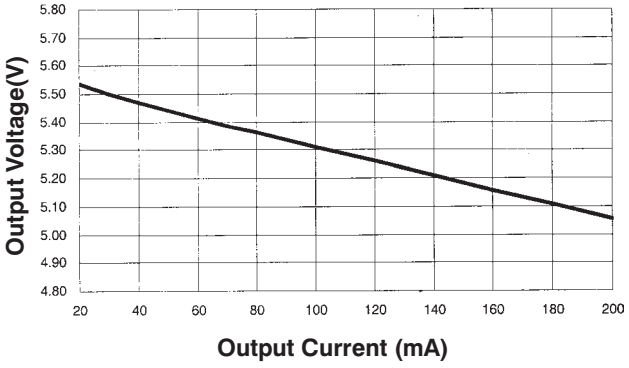
- 1.0 watt output power, PCB mounting
- Input options: 5V, 12V, 15V & 24vdc
- Industry standard footprint
- 1000V isolation standard models
- 3000V isolation option (**-N** models)
- Single-in-line (SIP) package
- High efficiency
- Safety Approvals EN60950, UL60950
- High MTBF >1m hrs
- High operating temperature
- Non-Conductive case

Specifications:

Input Voltage	5VDC (4.5 V~ 5.5) 12VDC (10.8 ~ 13.2) 15VDC (13.5 ~ 16.5) 24VDC (21.6 ~ 26.4)
Input Filter	Capacitor
Efficiency	Model dependent 73 ~ 83%
Output Power	1 watt
Voltage Accuracy	±5% (full load and nominal input)
Minimum Load	10% to meet regulation
Line Regulation	1.3% per 1% Vin (10 ~ 100% load)
Load Regulation	5V output ±10% (20% to 100% load) Other outputs ±8% (20% to 100% load)
Ripple & Noise	See table (20MHz bandwidth)
Temperature Coefficient	±0.1% per ºC max
Short circuit Protection	Short Term
Isolation Voltage	Input – Output: 1000VDC (Standard models) Input – Output: 3000VDC (-N models)

Isolation Capacitance	30pF max.
Switching Frequency	60KHz
Safety	IEC60950, EN60950, UL60950
Case Material	Non-conductive black plastic
Potting Material	Epoxy UL94-V0
Operating Temperature	-25ºC to + 71ºC at rated load -25ºC to + 85ºC (with derating)
Thermal Shock	MIL-STD-810F
Vibration	10-55Hz, 10G, 30 min along X, Y and Z
Humidity	5% to 95% RH
MTBF	1.471 x 10^7 hrs
Dimensions	19.6 x 6.0 x 10.2mm
Weight	2.0g

DU1P0-05S05N Vout Regulation for 5.0V Input



REV 09-10-08

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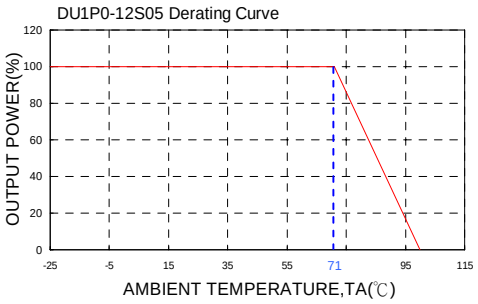
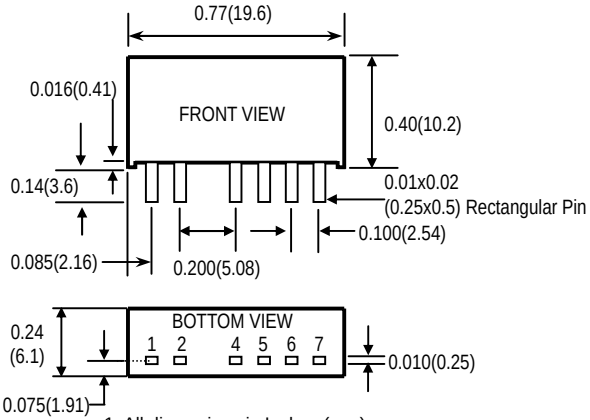
Model	Input V	Output V	Output Current		Output Ripple & Noise	Input Current		Eff (%)	Capacitor Load max
			Min. load	Full load		No load (3)	Full load (		
DU1P0-05S05	4.5 – 5.5 V	5 V	20mA	200mA	100mVp-p	42mA	274mA	77	330uF
DU1P0-05S12	4.5 – 5.5 V	12 V	8.3mA	83mA	100mVp-p	32mA	255mA	82	330uF
DU1P0-05S15	4.5 – 5.5 V	15 V	6.7mA	67mA	100mVp-p	35mA	261mA	81	330uF
DU1P0-05D05	4.5 – 5.5 V	± 5 V	± 10mA	± 100mA	100mVp-p	40mA	270mA	78	±150uF
DU1P0-05D12	4.5 – 5.5 V	± 12 V	± 4.2mA	± 42mA	100mVp-p	35mA	258mA	82	±150uF
DU1P0-05D15	4.5 – 5.5 V	± 15 V	± 3.3mA	± 33mA	100mVp-p	40mA	257mA	81	±150uF
DU1P0-12S05	10.8 – 13.2 V	5 V	20mA	200mA	100mVp-p	17mA	114mA	77	330uF
DU1P0-12S12	10.8 – 13.2 V	12 V	8.3mA	83mA	100mVp-p	17mA	106mA	82	330uF
DU1P0-12S15	10.8 – 13.2 V	15 V	6.7mA	67mA	100mVp-p	18mA	112mA	79	330uF
DU1P0-12D05	10.8 – 13.2 V	± 5 V	± 10mA	± 100mA	100mVp-p	18mA	114mA	77	±150uF
DU1P0-12D12	10.8 – 13.2 V	± 12 V	± 4.2mA	± 42mA	100mVp-p	18mA	109mA	81	±150uF
DU1P0-12D15	10.8 – 13.2 V	± 15 V	± 3.3mA	± 33mA	100mVp-p	18mA	106mA	82	±150uF
DU1P0-15S05	13.5 – 16.5 V	5 V	20mA	200mA	100mVp-p	20mA	97mA	73	330uF
DU1P0-15S12	13.5 – 16.5 V	12 V	8.3mA	83mA	100mVp-p	18mA	89mA	79	330uF
DU1P0-15S15	13.5 – 16.5 V	15 V	6.7mA	67mA	100mVp-p	18mA	88mA	80	330uF
DU1P0-15D05	13.5 – 16.5 V	± 5 V	± 10mA	± 100mA	100mVp-p	18mA	94mA	75	±150uF
DU1P0-15D12	13.5 – 16.5 V	± 12 V	± 4.2mA	± 42mA	100mVp-p	16mA	88mA	80	±150uF
DU1P0-15D15	13.5 – 16.5 V	± 15 V	± 3.3mA	± 33mA	100mVp-p	16mA	87mA	80	±150uF
DU1P0-24S05	21.6 – 26.4 V	5 V	20mA	200mA	100mVp-p	12mA	61mA	72	330uF
DU1P0-24S12	21.6 – 26.4 V	12 V	8.3mA	83mA	100mVp-p	12mA	56mA	78	330uF
DU1P0-24S15	21.6 – 26.4 V	15 V	6.7mA	67mA	100mVp-p	10mA	57mA	78	330uF
DU1P0-24D05	21.6 – 26.4 V	± 5 V	± 10mA	± 100mA	100mVp-p	12mA	59mA	75	±150uF
DU1P0-24D12	21.6 – 26.4 V	± 12 V	± 4.2mA	± 42mA	100mVp-p	10mA	57mA	78	±150uF
DU1P0-24D15	21.6 – 26.4 V	± 15 V	± 3.3mA	± 33mA	100mVp-p	10mA	55mA	79	±150uF

Price & Stock Enquiry

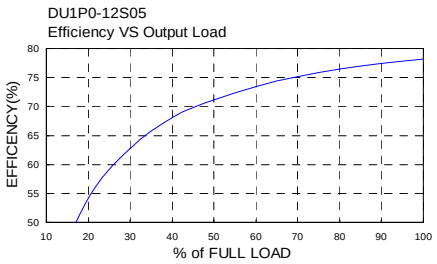
Nots

1. MTBF calculated to BELLCORE TR-NWT-000332. Case 1: 50% Stress, Temperature at 40ºC. (Ground fixed and controlled environment).
2. Typical values at nominal input voltage and full load.
3. Tests by minimum Vin and constant resistive load.
4. The output requires a minimum loading on the output to maintain specified regulation. Operation under no-load condition will not damage these devices, however they may not meet all listed specification.





1. All dimensions in Inches (mm)
   Tolerance: X.XX±0.02 (X.X±0.5)
   X.XXX±0.01 (X.XX±0.25)
2. Pin pitch tolerance ±0.01(0.25)
3. Pin dimension tolerance ±0.004 (0.1)



Standard 1kV		
PIN	Single	Dual
1	+ Input	+ Input
2	- Input	- Input
4	- Output	- Output
5	NC	Common
6	+ Output	+ Output

"N" Models 3kV		
PIN	Single	Dual
1	+ Input	+ Input
2	- Input	- Input
5	- Output	- Output
6	NC	Common
7	+ Output	+ Output