

DC/DC

3.6 Watts

Single/Dual Outputs

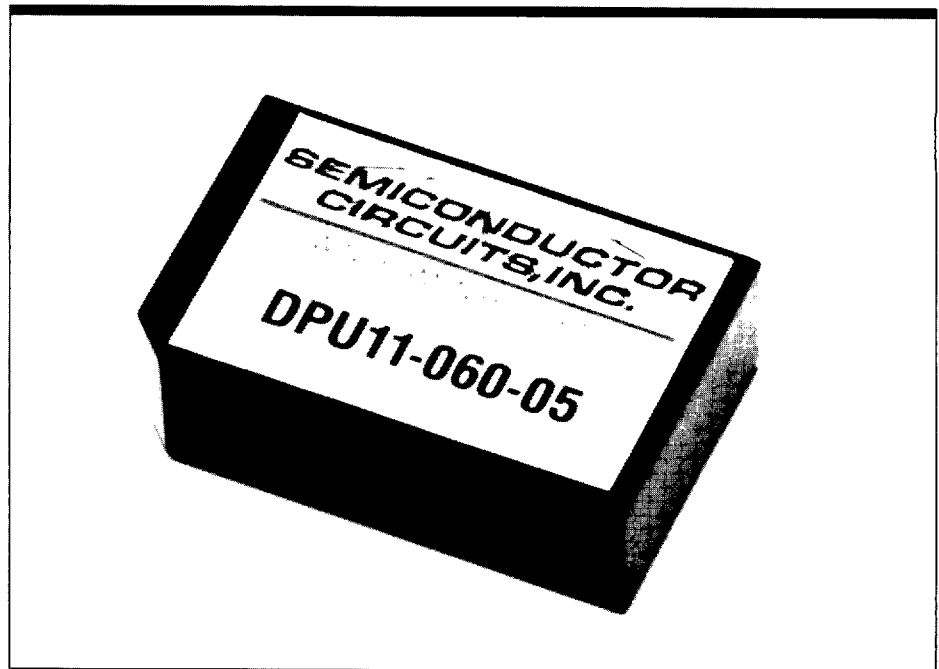
DPU/DPA Series

- MOSFET technology
- Efficiency to 80%
- MTBF in excess of 1,000,000 hours**
- LC input filter
- Operating temperature range: -25°C to +71°C; No derating

The DPU/DPA is an economically priced series of miniature DC/DC converters offering both single and dual outputs. These unregulated converters offer the latest in MOSFET technology. Featuring efficiencies to 80% and a calculated MTBF in excess of 1,000,000 hours.** Additional features include an operating temperature range of -25° C to +71° C with no derating and an LC input filter to reduce the reflected ripple. All this in a package measuring 1.25" x 0.8" x 0.375" high.

Applications

The DPU/DPA Series is ideally suited for many microprocessor and memory applications. For user convenience, all dual output models can deliver full rated output power from either side. Applications include process control, telecommunications (including Ethernet), automatic test equipment, etc.



Specifications

INPUT

Voltage Range	4.5 - 5.5 Vdc
Filtering	LC

OUTPUT

Voltage Tolerance	± 3%
Ripple and Noise	30 mV RMS*
Short Circuit Protection	Short Term
Temperature Coefficient	0.02%/° C max.

GENERAL

Regulation: Line	± 1%/ % VIN (typ.)
Efficiency	80% (typ.)
I/O Isolation	500 Vdc
Switching Frequency	50 kHz

ENVIRONMENTAL

Operating Temperature Range	-25° C to +71° C; No Derating
Storage Temperature Range	-40° C to +105° C
Cooling	Free-air Convection

NOTES: * Measured with 3.3 MF 25V tantalum capacitor across each output.
 ** MTBF is calculated per mil handbook 217D at +25° and ground benign.

**SEMICONDUCTOR
CIRCUITS, INC.**
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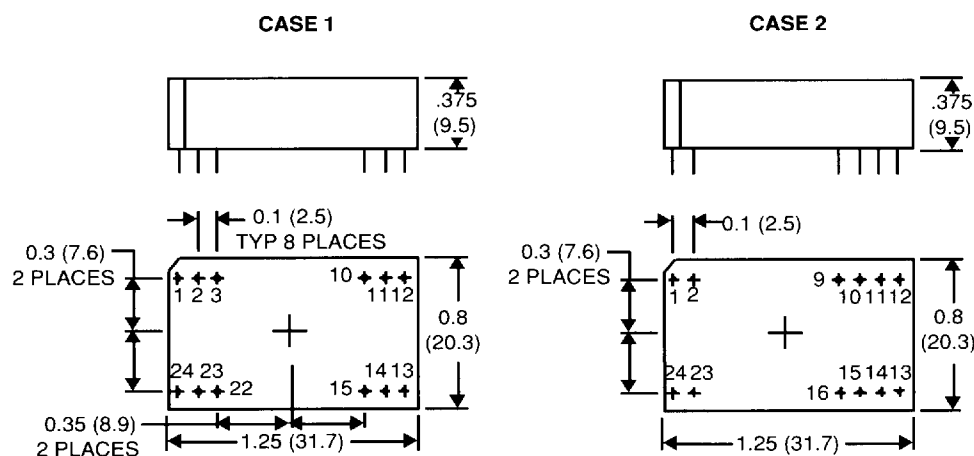
All specifications are typical at nominal line and full load at +25° C unless otherwise noted.
 Specifications subject to change without notice.

ASTEC

DPU/DPA Series Ordering Information

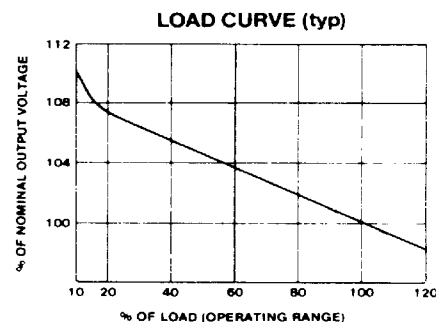
Input Voltage	Output Voltage	Output Current	Case 1 Model Number	Case 2 Model Number
4.5-5.5 Vdc	5 Vdc	600 mA	DPU11-060-05	DPA11-060-05
4.5-5.5 Vdc	9 Vdc	330 mA	DPU19-033-05	DPA19-033-05
4.5-5.5 Vdc	12 Vdc	300 mA	DPU12-030-05	DPA12-030-05
4.5-5.5 Vdc	15 Vdc	240 mA	DPU13-024-05	DPA13-024-05
4.5-5.5 Vdc	±12 Vdc	±150 mA	DPU22-030-05	--
4.5-5.5 Vdc	±15 Vdc	±120 mA	DPU23-024-05	--

Dimensions and Connections



PIN CONNECTIONS

CASE 1		CASE 2	
Single Output	Dual Output		
PIN 1. & 24. +Vdc	PIN 1. & 24. +Vdc In	PIN 1. & 2. +Vdc In	
2. & 23. N.C.	2. & 23. -Vdc Out	9. & 10. -Vdc Out	
3. & 22. -Vdc Out	3. & 22. Common Out	11. & 12. +Vdc Out	
10. & 15. -Vdc Out	10. & 15. Common Out	13. & 14. No Connection	
11. & 14. +Vdc Out	11. & 14. +Vdc Out	15. & 16. No Connection	
12. & 13. -Vdc In	12. & 13. -Vdc In	23. & 24. -Vdc In	



49 Range Road

Windham, NH 03087

(603) 893-2330

FAX (603) 893-6280