

SERIES AT/DT

High Reliability
Ultra-Miniature, 0.2" ht.
Isolated DC-DC Converters

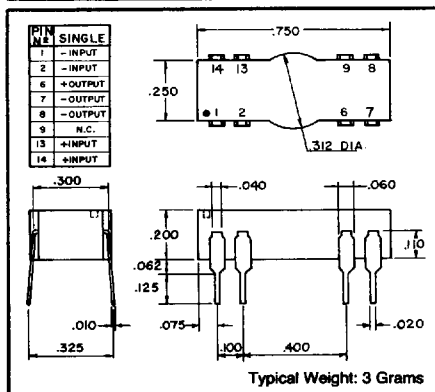
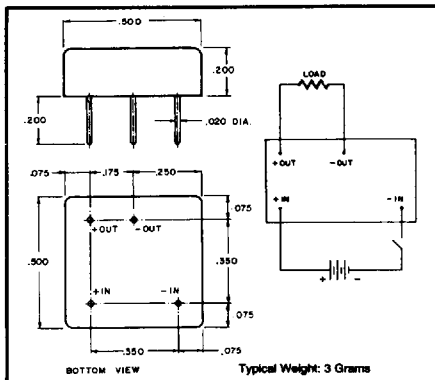
OPTIONS AVAILABLE

- Expanded operating temp (-55°C to +85°C)
- Stabilization Bake (125°C ambient)
- Temperature Cycle (-55°C to +125°C)
- Hi Temp, full power burn in (100% power, 125°C case temp)

FEATURES

- Ultra-miniature, 0.200" height
- New DIP package available
- Low current consumption
- No external components required
- 4 convenient input voltages, 3-5-9-12V DC
- Up to 0.75 watt output
- Encapsulated semiconductors, conservatively rated for maximum reliability
- Single and dual outputs
- Isolated: 100 megohms at 500V DC
- No heat sink required

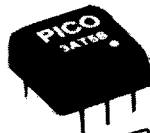
This series of unregulated DC-DC converters offer you a 0.200" tall, package. 64 different models are available and all offer very low current consumption to operate in battery driven circuits. Isolated, single and dual outputs will operate from -25°C to +70°C with no heat sink or derating required. Built-in output capacitors and 4 convenient input voltages also help in simplifying your design, and with the addition of our new DIP package, board layout and assembly is simplified.



For immediate engineering assistance or to place an order—
Call Toll Free 800-431-1064

PICO
Electronics, Inc.

453 North MacQuesten Pkwy., Mt. Vernon, N.Y. 10552
 914-699-5514 • FAX 914-699-5565



**No Heat Sink
 or Electrical
 Derating Required**

**0.2" Height
 Low Profile**

**No External
 Components
 Required**

**Low No Load Current
 for Battery Applications**

**New DIP
 Package**

**SERIES AT - SINGLE OUTPUT**

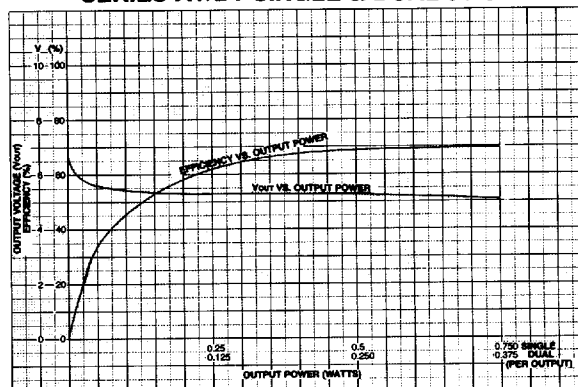
PICO PART NUMBER	INPUT VOLTAGE (V DC)	OUTPUT VOLTAGE (V DC)	MAX. LOAD CURRENT (mA)	MAX. OUTPUT POWER (watts)	EFF. @ FULL LOAD TYPICAL (%)	INPUT CURRENT FULL LOAD TYPICAL (mA)	TYPICAL OUTPUT VOLT RIPPLE @ FULL LOAD* (Vp-p max)	NO LOAD CURRENT TYPICAL (mA)	FULL LOAD OUTPUT VOLTAGE TOLERANCE (V DC)	PRICE 1-24
3AT5S	3	5	130	0.65	66	328	0.20	35	±0.25	\$4.82
3AT9S	3	9	83	0.75	70	357	0.20	35	±0.30	\$4.82
3AT12S	3	12	63	0.75	72	347	0.20	35	±0.40	\$4.82
3AT15S	3	15	50	0.75	73	342	0.20	35	±0.40	\$4.82
5AT5S	5	5	150	0.75	69	217	0.20	25	±0.25	\$4.82
5AT9S	5	9	83	0.75	72	208	0.20	25	±0.30	\$4.82
5AT12S	5	12	63	0.75	75	200	0.20	25	±0.40	\$4.82
5AT15S	5	15	50	0.75	76	197	0.20	25	±0.40	\$4.82
9AT5S	9	5	150	0.75	70	119	0.20	8	±0.25	\$4.82
9AT9S	9	9	83	0.75	72	116	0.20	8	±0.30	\$4.82
9AT12S	9	12	63	0.75	78	107	0.20	8	±0.40	\$4.82
9AT15S	9	15	50	0.75	80	104	0.20	8	±0.40	\$4.82
12AT5S	12	5	150	0.75	71	88	0.20	8	±0.25	\$4.82
12AT9S	12	9	83	0.75	73	86	0.20	8	±0.30	\$4.82
12AT12S	12	12	63	0.75	78	80	0.20	8	±0.40	\$4.82
12AT15S	12	15	50	0.75	80	78	0.20	8	±0.40	\$4.82

SERIES DT - SINGLE OUTPUT

PICO PART NUMBER	INPUT VOLTAGE (V DC)	OUTPUT VOLTAGE (V DC)	MAX. LOAD CURRENT (mA)	MAX. OUTPUT POWER (watts)	EFF. @ FULL LOAD TYPICAL (%)	INPUT CURRENT FULL LOAD TYPICAL (mA)	TYPICAL OUTPUT VOLT RIPPLE @ FULL LOAD* (Vp-p max)	NO LOAD CURRENT TYPICAL (mA)	FULL LOAD OUTPUT VOLTAGE TOLERANCE (V DC)	PRICE 1-24
3DT5S	3	5	130	0.65	66	328	0.20	35	±0.25	\$4.82
3DT9S	3	9	83	0.75	70	357	0.20	35	±0.30	\$4.82
3DT12S	3	12	63	0.75	72	347	0.20	35	±0.40	\$4.82
3DT15S	3	15	50	0.75	73	342	0.20	35	±0.40	\$4.82
5DT5S	5	5	150	0.75	69	217	0.20	25	±0.25	\$4.82
5DT9S	5	9	83	0.75	72	208	0.20	25	±0.30	\$4.82
5DT12S	5	12	63	0.75	75	200	0.20	25	±0.40	\$4.82
5DT15S	5	15	50	0.75	76	197	0.20	25	±0.40	\$4.82
9DT5S	9	5	150	0.75	70	119	0.20	8	±0.25	\$4.82
9DT9S	9	9	83	0.75	72	116	0.20	8	±0.30	\$4.82
9DT12S	9	12	63	0.75	78	107	0.20	8	±0.40	\$4.82
9DT15S	9	15	50	0.75	80	104	0.20	8	±0.40	\$4.82
12DT5S	12	5	150	0.75	71	88	0.20	8	±0.25	\$4.82
12DT9S	12	9	83	0.75	73	86	0.20	8	±0.30	\$4.82
12DT12S	12	12	63	0.75	78	80	0.20	8	±0.40	\$4.82
12DT15S	12	15	50	0.75	80	78	0.20	8	±0.40	\$4.82

Ordering Instructions:
 No minimum. Net 30 days
 F.O.B. Mt. Vernon, New York.

**Delivery—
 stock to one week**

SERIES AT/DT SINGLE & DUAL 5V-5V



AT Low Profile .5"x.5"x.2" ht.
... up to 0.75 Watts

No External Components Required

DT .200" ht. in DIP Package
... up to 0.75 Watts

New DIP Package



T-57-11

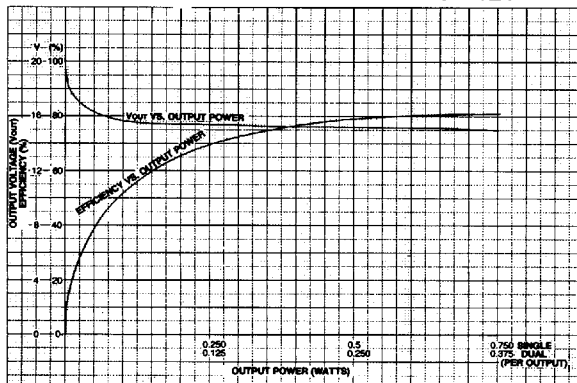
SERIES AT - DUAL OUTPUT

PICO PART NUMBER	INPUT VOLTAGE (V DC)	DUAL OUTPUT VOLTAGE (V DC)	MAX. LOAD CURRENT PER OUTPUT (mA)	MAX. OUTPUT POWER PER OUTPUT (watts)	EFF. @ FULL LOAD TYPICAL (%)	INPUT CURRENT FULL LOAD TYPICAL (mA)	TYPICAL OUTPUT VOLT RIPPLE @ FULL LOAD* (Vp-p max)	NO LOAD CURRENT TYPICAL (mA)	FULL LOAD OUTPUT VOLTAGE TOLERANCE (V DC)	PRICE 1-24
3AT50	3	5	65	0.325	66	328	0.20	35	±0.25	95.89
3AT90	3	9	41	0.375	70	357	0.20	35	±0.30	95.89
3AT120	3	12	31	0.375	72	347	0.20	35	±0.40	95.89
3AT150	3	15	25	0.375	73	342	0.20	35	±0.40	95.89
5AT50	5	5	75	0.375	69	217	0.20	35	±0.40	95.89
5AT90	5	9	41	0.375	72	208	0.20	25	±0.30	95.89
5AT120	5	12	31	0.375	75	200	0.20	25	±0.40	95.89
5AT150	5	15	25	0.375	76	197	0.20	25	±0.40	95.89
9AT50	9	5	75	0.375	70	119	0.20	8	±0.25	95.89
9AT90	9	9	41	0.375	72	116	0.20	8	±0.30	95.89
9AT120	9	12	31	0.375	78	107	0.20	8	±0.40	95.89
9AT150	9	15	25	0.375	80	104	0.20	8	±0.40	95.89
12AT50	12	5	75	0.375	71	88	0.20	8	±0.25	95.89
12AT90	12	9	41	0.375	78	86	0.20	8	±0.30	95.89
12AT120	12	12	31	0.375	78	80	0.20	8	±0.40	95.89
12AT150	12	15	25	0.375	80	78	0.20	8	±0.40	95.89

SERIES DT-DUAL OUTPUT

PICO PART NUMBER	INPUT VOLTAGE (V DC)	OUTPUT VOLTAGE (V DC)	MAX. LOAD CURRENT (mA)	MAX. OUTPUT POWER (watts)	EFF. @ FULL LOAD TYPICAL (%)	INPUT CURRENT FULL LOAD TYPICAL (mA)	TYPICAL OUTPUT VOLT RIPPLE @ FULL LOAD* (Vp-p max)	NO LOAD CURRENT TYPICAL (mA)	FULL LOAD OUTPUT VOLTAGE TOLERANCE (V DC)	PRICE 1-24
3DT50	3	5	65	0.325	66	328	0.20	35	±0.25	95.89
3DT90	3	9	41	0.375	70	357	0.20	35	±0.30	95.89
3DT120	3	12	31	0.375	72	347	0.20	35	±0.40	95.89
3DT150	3	15	25	0.375	73	342	0.20	35	±0.40	95.89
5DT50	5	5	75	0.375	69	217	0.20	25	±0.25	95.89
5DT90	5	9	41	0.375	72	208	0.20	25	±0.30	95.89
5DT120	5	15	25	0.375	76	197	0.20	25	±0.40	95.89
5DT150	5	15	25	0.375	76	197	0.20	25	±0.40	95.89
9DT50	9	5	75	0.375	70	119	0.20	8	±0.25	95.89
9DT90	9	9	41	0.375	72	116	0.20	8	±0.30	95.89
9DT120	9	12	31	0.375	78	107	0.20	8	±0.40	95.89
9DT150	9	15	25	0.375	80	104	0.20	8	±0.40	95.89
12DT50	12	5	75	0.375	71	88	0.20	8	±0.25	95.89
12DT90	12	9	41	0.375	73	86	0.20	8	±0.30	95.89
12DT120	12	12	31	0.375	78	80	0.20	8	±0.40	95.89
12DT150	12	15	25	0.375	80	78	0.20	8	±0.40	95.89

SERIES AT/DT SINGLE & DUAL 9V-12V



Ordering Instructions:
No minimum. Net 30 days
F.O.B. Mt. Vernon, New York.

Delivery—
stock to one week

TYPICAL CHARACTERISTICS:

Test conditions: 25°C ambient and input voltage at nominal value unless otherwise specified.

LINE REGULATION: OUTPUT VOLTAGE IS DIRECTLY PROPORTIONAL TO THE INPUT VOLTAGE.

Input voltage range: 3V models 2.5 to 3.5V DC
5V models 4 to 6V DC
9V models 7 to 11V DC
12V models 9 to 14V DC

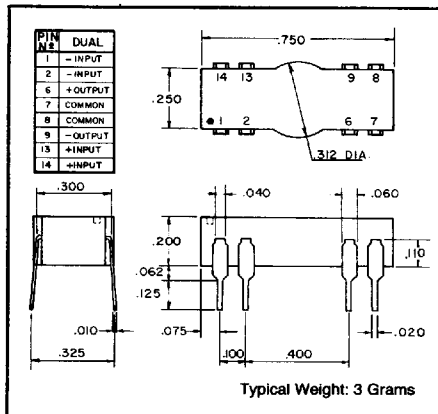
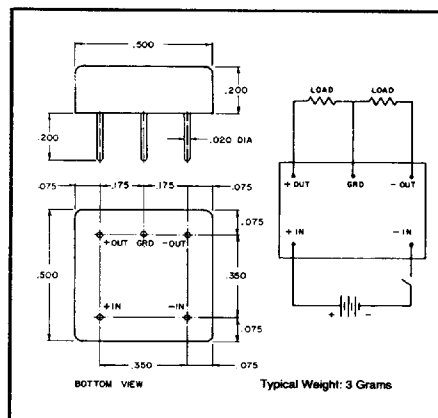
Converter frequency: 40 to 70 KHz

Output temperature coefficient:
0.05% per °C all models

Operating temperature: -25°C to +70°C ambient.
No heat sink or derating required.

Storage temperature: -55°C to +125°C

Isolation: 100 megohms min. @ 500V DC



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