

SERIES AV/SMV
SURFACE MOUNT and PLUG-IN

Hi Voltage - Up to 500 VDC Output
Hi Reliability
Ultra-Miniature - Low Profile
Isolated DC-DC Converters

NEW DUAL OUTPUT MODULES
± 100 to ±250 VDC OUT

This series of unregulated high voltage DC-DC converters are produced in an ultra-miniature encapsulated package. 110 different models are available. These single and dual output isolated units will operate over the temperature range of -25° C to +70° C with no heat sink or electrical derating. For military applications an operating temperature range of -55° C to +85° C is available. An optional environmental screening package per MIL-STD-883 is also available.

FEATURES	TYPICAL CHARACTERISTICS:
1.25 watt output at 70° ambient - Ultra-miniature size 0.400" height, 4.0 grams weight, 0.1 cubic inches volume 5 input voltage ranges 5, 12, 15, 24 and 28 VDC 100 megohm @ 1000 VDC input/output isolation - MIL-STD 883 options available - No heat sink or electrical derating required - New dual outputs: ± Vout 100 to 250 VDC	Test conditions: 25° C ambient and input voltage at nominal value unless otherwise specified. LINE REGULATION: OUTPUT IS DIRECTLY PROPORTIONAL TO THE INPUT. Input voltage range:±10% all models Output voltage tolerance at full load-nom. Input:±3% Please keep loaded to minimum of 10% at all times. Note: For tighter output voltage tolerances, please consult factory. Converter frequency: 20 - 40 KHz Output temperature coefficient: 0.02%/°C for all models Operating temperature: -25° C to +70° C ambient. No heat sink is required. Storage temperature: -55° C to +125° C Isolation: 100 megohms min. @ 1000V DC
OPTIONS AVAILABLE - Selected Per Mil. Std. 883 - 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)	

SERIES AV/SMV - SINGLE OUTPUT										
PICO Plug-in Part Number	PICO Surface Mount Part Number	Input Volt. (V DC)	Output Volt. (V DC)	Max. Load Current (mA)	Max. Output Power (watts)	Eff. @ Full Load Typical (%)	Input Current Full Load Typical (mA)	* Output Volt. Ripple @ Full Load (Vp-p max)	** Full Load Output Volt. Tolerance (± %)	Price (US \$)
5AV100	5SMV100	5	100	12.50	1.25	78	321	0.90	3	98.15
5AV150	5SMV150	5	150	8.30	1.25	76	329	0.90	3	98.15
5AV200	5SMV200	5	200	6.25	1.25	75	333	0.90	3	98.15
5AV250	5SMV250	5	250	5.00	1.25	75	333	0.90	3	98.15
5AV300	5SMV300	5	300	4.16	1.25	70	357	1.20	3	121.28
5AV350	5SMV350	5	350	3.57	1.25	70	357	1.20	3	121.28
5AV400	5SMV400	5	400	3.12	1.25	70	357	1.20	3	121.28
5AV450	5SMV450	5	450	2.77	1.25	70	357	1.50	3	121.28
5AV500	5SMV500	5	500	2.50	1.25	70	357	1.50	3	121.28

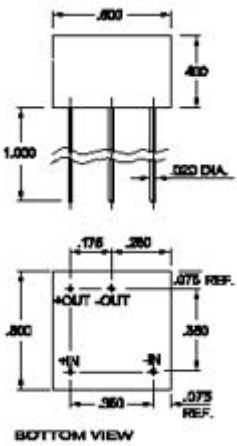
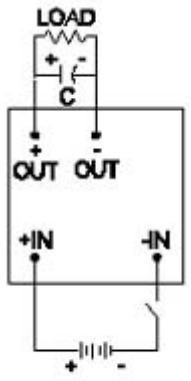
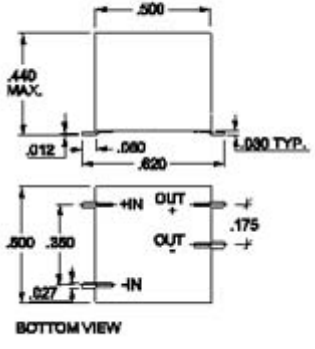
12AV100	12SMV100	12	100	12.50	1.25	80	130	0.90	3	98.15
12AV150	12SMV150	12	150	8.30	1.25	79	132	0.90	3	98.15
12AV200	12SMV200	12	200	6.25	1.25	78	134	0.90	3	98.15
12AV250	12SMV250	12	250	5.00	1.25	75	139	0.90	3	98.15
12AV300	12SMV300	12	300	4.16	1.25	75	139	1.20	3	121.28
12AV350	12SMV350	12	350	3.57	1.25	75	139	1.20	3	121.28
12AV400	12SMV400	12	400	3.12	1.25	75	139	1.20	3	121.28
12AV450	12SMV450	12	450	2.77	1.25	75	139	1.50	3	121.28
12AV500	12SMV500	12	500	2.50	1.25	75	139	1.50	3	121.28
15AV100	15SMV100	15	100	12.50	1.25	80	104	0.90	3	98.15
15AV150	15SMV150	15	150	8.30	1.25	79	105	0.90	3	98.15
15AV200	15SMV200	15	200	6.25	1.25	78	107	0.90	3	98.15
15AV250	15SMV250	15	250	5.00	1.25	75	111	0.90	3	98.15
15AV300	15SMV300	15	300	4.16	1.25	75	111	1.20	3	121.28
15AV350	15SMV350	15	350	3.57	1.25	75	111	1.20	3	121.28
15AV400	15SMV400	15	400	3.12	1.25	75	111	1.20	3	121.28
15AV450	15SMV450	15	450	2.77	1.25	75	111	1.50	3	121.28
15AV500	15SMV500	15	500	2.50	1.25	75	111	1.50	3	121.28
24AV100	24SMV100	24	100	12.50	1.25	76	69	0.90	3	98.15
24AV150	24SMV150	24	150	8.30	1.25	73	71	0.90	3	98.15
24AV200	24SMV200	24	200	6.25	1.25	73	71	0.90	3	98.15
24AV250	24SMV250	24	250	5.00	1.25	70	74	0.90	3	98.15
24AV300	24SMV300	24	300	4.16	1.25	73	71	1.20	3	121.28
24AV350	24SMV350	24	350	3.57	1.25	73	71	1.20	3	121.28
24AV400	24SMV400	24	400	3.12	1.25	73	71	1.20	3	121.28
24AV450	24SMV450	24	450	2.77	1.25	73	71	1.50	3	121.28
24AV500	24SMV500	24	500	2.50	1.25	73	71	1.50	3	121.28
28AV100	28SMV100	28	100	12.50	1.25	75	60	0.90	3	98.15
28AV150	28SMV150	28	150	8.30	1.25	76	59	0.90	3	98.15
28AV200	28SMV200	28	200	6.25	1.25	75	60	0.90	3	98.15
28AV250	28SMV250	28	250	5.00	1.25	70	64	0.90	3	98.15
28AV300	28SMV300	28	300	4.16	1.25	73	61	1.20	3	121.28
28AV350	28SMV350	28	350	3.57	1.25	73	61	1.20	3	121.28
28AV400	28SMV400	28	400	3.12	1.25	73	61	1.20	3	121.28
28AV450	28SMV450	28	450	2.77	1.25	73	61	1.50	3	121.28
28AV500	28SMV500	28	500	2.50	1.25	73	61	1.50	3	121.28

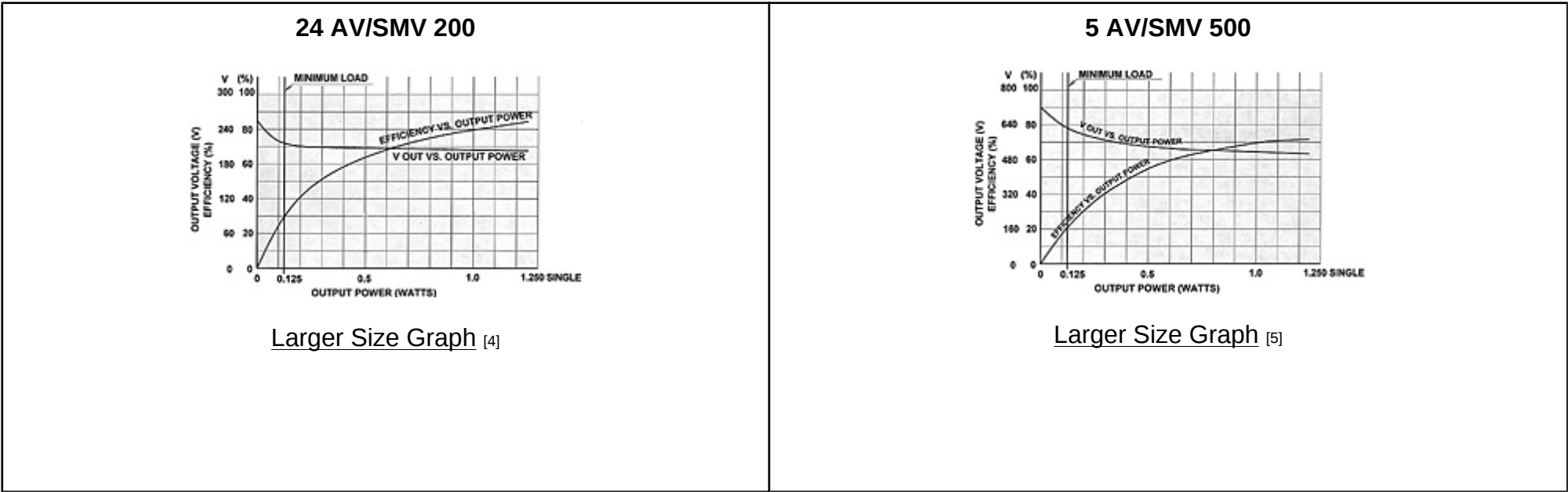
* Measured using 0.1µf, 1000 volt DC capacitor which is required across the output and maintain at least 10% of load at all times to prevent voltage surge.

**For tighter tolerances consult factory.

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

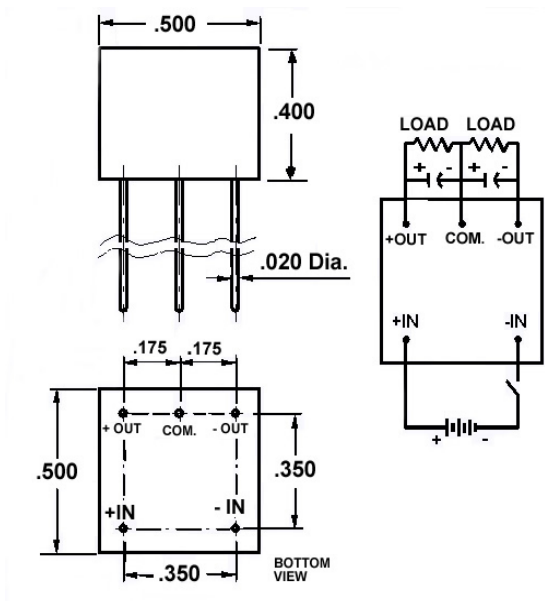
Delivery--stock to one week for sample orders.

Series AV/SMV Single Output		
AV Single  Typical Weight: 4 grams Dimensions are in Inches Larger Size Drawing [1]	Typical Weight: 4 Grams  C = 0.1 uF, 1000 VDC Note: White dot on top indicates + input Larger Size Schematic [2]	SMV Single  Dimensions are in Inches Larger Size Drawing [3]



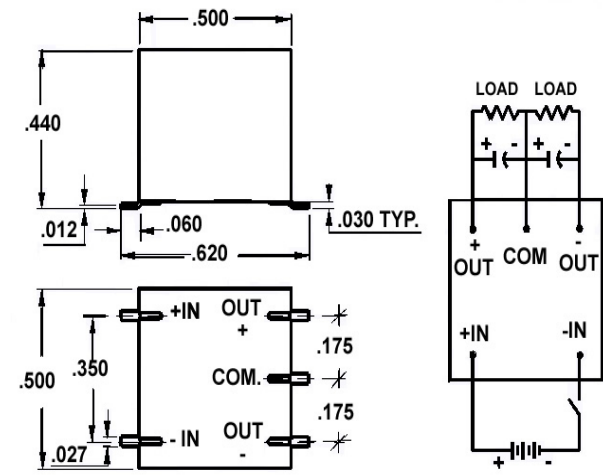
SERIES AV/SMV - DUAL OUTPUT										
PICO Plug-in Part Number	PICO Surface Mount Part Number	Input Voltage (V DC)	Output Voltage (V DC)	Max Current Per O/P (mA)	Max Power Per O/P (Watts)	Typical Full Load Efficiency (%)	Full Load Input Current Typical (mA)	* Max Output Voltage Ripple at Full Load (V p-p)	** Full Load Output Voltage Tolerance (± %)	Price (US \$)
5AV100D	5SMV100D	5	±100	6.25	0.625	78	320	0.4	3	147.23
5AV150D	5SMV150D	5	±150	4.17	0.625	78	320	0.4	3	147.23
5AV200D	5SMV200D	5	±200	3.13	0.625	78	320	0.4	3	171.76
5AV250D	5SMV250D	5	±250	2.5	0.625	76	329	0.4	3	171.76
12AV100D	12SMV100D	12	±100	6.25	0.625	80	130	0.4	3	147.23
12AV150D	12SMV150D	12	±150	4.17	0.625	80	130	0.4	3	147.23
12AV200D	12SMV200D	12	±200	3.13	0.625	80	130	0.4	3	171.76
12AV250D	12SMV250D	12	±250	2.5	0.625	80	130	0.4	3	171.76
15AV100D	15SMV100D	15	±100	6.25	0.625	81	103	0.4	3	147.23
15AV150D	15SMV150D	15	±150	4.17	0.625	81	103	0.4	3	147.23
15AV200D	15SMV200D	15	±200	3.13	0.625	79	106	0.4	3	171.76
15AV250D	15SMV250D	15	±250	2.5	0.625	78	107	0.8	3	171.76
24AV100D	24SMV100D	24	±100	6.25	0.625	80	66	0.8	3	147.23
24AV150D	24SMV150D	24	±150	4.17	0.625	80	66	0.8	3	147.23
24AV200D	24SMV200D	24	±200	3.13	0.625	79	66	0.8	3	171.76
24AV250D	24SMV250D	24	±250	2.5	0.625	79	66	0.8	3	171.76
28AV100D	28SMV100D	28	±100	6.25	0.625	79	57	0.8	3	147.23
28AV150D	28SMV150D	28	±150	4.17	0.625	79	57	0.8	3	147.23
28AV200D	28SMV200D	28	±200	3.13	0.625	78	58	0.8	3	171.76
28AV250D	28SMV250D	28	±250	2.5	0.625	76	59	0.8	3	171.76
* Measured using 0.1µf, 1000 volt DC capacitor which is REQUIRED across <u>each</u> output and maintain at least 10% load at all times to prevent voltage surge. ** For tighter tolerances, consult factory Ordering Instructions: No minimum. Net 30 days, F.O.B. Pelham, N.Y. Delivery: Stock to one week for sample orders										

AV DUAL SERIES	SMV DUAL SURFACE MOUNT
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Dimensions are in Inches

[Click Here for Larger Schematic](#) [6]



BOTTOM VIEW

Typical weight: 3.5 Grams

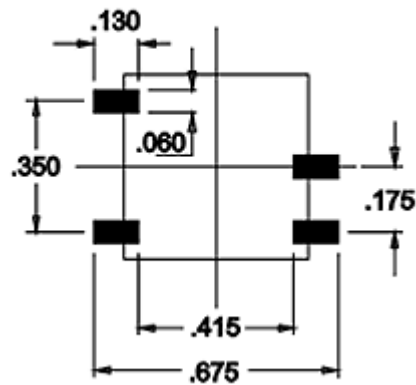
NOTE: WHITE DOT ON TOP OF UNITS INDICATES + INPUT

Dimensions are in Inches

[Click Here for Larger Schematic](#) [7]

RECOMMENDED LAND PATTERN DIMENSIONS SERIES SMV SINGLE OUTPUT

PICO SMV SERIES

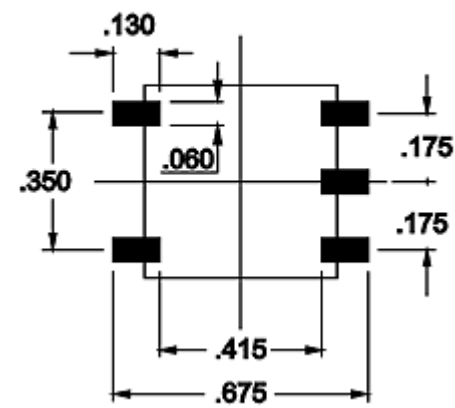


Dimensions are in Inches

[Click Here for Larger Schematic](#) [8]

RECOMMENDED LAND PATTERN DIMENSIONS SERIES SMV DUAL OUTPUT

PICO SM SERIES



Dimensions are in Inches

[Click Here for Larger Schematic](#) [9]

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

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