

DC-DC Converter Transformers

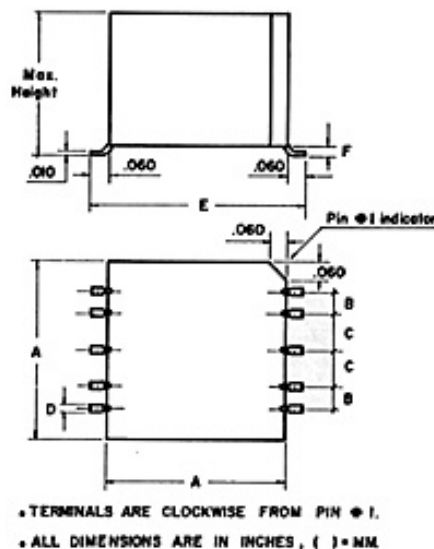
SURFACE MOUNT

PICO surface mount units utilize materials and methods to withstand extreme temperatures of vapor phase, I.R., and other reflow procedures without degradation of electrical or mechanical characteristics.

- These units can be used as self saturated or square wave driven
- Input voltages of: 5V, 12V, 24V and 48V
- Output voltages up to 300 Volts
- Power levels up to 40 Watts

All units can be supplied with higher or lower output voltages.

Delivery-stock to one week for sample orders.



BOTTOM VIEW

[Larger size drawing](#)

Size	Max. Height	A	B	C	D	E	F
1	.310 (7.87)	.400 (10.16)	.050 (1.27)	.075 (1.91)	.020 (.51)	.520 (13.21)	.012 (.30)
2	.365 (9.27)	.495 (12.57)	.055 (1.40)	.095 (2.41)	.020 (.51)	.615 (15.62)	.012 (.30)
3	.460 (11.68)	.615 (15.62)	.075 (1.90)	.125 (3.18)	.027 (.69)	.735 (18.67)	.020 (.51)

INPUT 5 VOLTS

Part Number	D.C. OUT VOLTS			MAX. POWER OUT		APPROX. SWITCH FREQ.		SIZE	*** PRICE 1-9
	Bridge	Full Wave	Dual Bridge	-55°C to +105°C	-55°C to +70°C	Self-Saturated	Square-Wave Driven**		
31420	10	5	±5	1.5W	3W	15K	30K TO 60K	1	52.10
31440	12	6	±6	1.5W	3W	15K	30K TO 60K	1	52.10
31460	28	14	±14	1.5W	3W	15K	30K TO 60K	1	52.10
31480	48	24	±24	1.5W	3W	20K	40K TO 60K	1	52.10
31500	100	50	±50	1.5W	3W	20K	40K TO 60K	1	52.10
32505	10	5	±5	3W	4.5W	15K	30K TO 60K	2	52.10
32525	12	6	±6	3W	4.5W	15K	30K TO 60K	2	52.10
32545	28	14	±14	3W	4.5W	15K	30K TO 60K	2	52.10
32565	48	24	±24	3W	4.5W	20K	40K TO 60K	2	52.10
32585	100	50	±50	3W	4.5W	20K	40K TO 60K	2	52.10
32588	150	75	±75	3W	-	10K	30K TO 60K	2	60.03
32591	200	100	±100	3W	-	10K	30K TO 60K	2	60.03
32594	300	150	±150	3W	-	10K	30K TO 60K	2	60.03
33503	10	5	±5	5W	7.5W	10K	20K TO 50K	3	52.10
33523	12	6	±6	5W	7.5W	10K	20K TO 50K	3	52.10
33543	28	14	±14	5W	7.5W	10K	20K TO 50K	3	52.10
33563	48	24	±24	5W	7.5W	10K	20K TO 50K	3	52.10
33583	100	50	±50	5W	7.5W	10K	20K TO 50K	3	52.10
33586	150	75	±75	5W	-	10K	30K TO 60K	3	54.57
33589	200	100	±100	5W	-	10K	30K TO 60K	3	54.57
33592	300	150	±150	5W	-	10K	30K TO 60K	3	54.57

** Lower Switching Frequency may be used at lower output power.

INPUT 12 VOLTS

Part Number	D.C. OUT VOLTS			MAX. POWER OUT		APPROX. SWITCH FREQ.		SIZE	*** PRICE 1-9
	Bridge	Full Wave	Dual Bridge	-55°C to +105°C	-55°C to +70°C	Self-Saturated	Square-Wave Driven**		

DC CONVERTER TRANSFORMERS

31520	12	6	±6	1.5W	3W	15K	30K TO 60K	1	52.10
31540	24	12	±12	1.5W	3W	15K	30K TO 60K	1	52.10
31560	28	14	±14	1.5W	3W	15K	30K TO 60K	1	52.10
31580	48	24	±24	1.5W	3W	20K	40K TO 60K	1	52.10
31600	100	50	±50	1.5W	3W	20K	40K TO 60K	1	52.10
32605	12	6	±6	3W	4.5W	15K	30K TO 60K	2	52.10
32625	24	12	±12	3W	4.5W	15K	30K TO 60K	2	52.10
32645	28	14	±14	3W	4.5W	15K	30K TO 60K	2	52.10
32665	48	24	±24	3W	4.5W	20K	40K TO 60K	2	52.10
32685	100	50	±50	3W	4.5W	20K	40K TO 60K	2	52.10
32688	150	75	±75	3W	-	10K	30K TO 60K	2	60.03
32691	200	100	±100	3W	-	10K	30K TO 60K	2	60.03
32694	300	150	±150	3W	-	10K	30K TO 60K	2	60.03
33603	12	6	±6	5W	7.5W	15K	30K TO 60K	3	52.10
33623	28	14	±14	5W	7.5W	15K	30K TO 60K	3	52.10
33643	48	24	±24	5W	7.5W	20K	40K TO 60K	3	52.10
33663	100	50	±50	5W	7.5W	20K	40K TO 60K	3	52.10
33666	150	75	±75	5W	-	10K	30K TO 60K	3	60.03
33669	200	100	±100	5W	-	10K	30K TO 60K	3	60.03
33672	300	150	±150	5W	-	10K	30K TO 60K	3	60.03

** Lower Switching Frequency may be used at lower output power.

INPUT 24 VOLTS

Part Number	D.C. OUT VOLTS			MAX. POWER OUT		APPROX. SWITCH FREQ.		SIZE	*** PRICE 1-9
	Bridge	Full Wave	Dual Bridge	-55°C to +105°C	-55°C to +70°C	Self-Saturated	Square-Wave Driven**		
31620	10	5	±5	1.5W	3W	15K	30K TO 60K	1	52.10
31640	28	14	±14	1.5W	3W	15K	30K TO 60K	1	52.10
31660	48	24	±24	1.5W	3W	20K	40K TO 60K	1	52.10
31680	100	50	±50	1.5W	3W	20K	40K TO 60K	1	52.10
32705	10	5	±5	3W	4.5W	15K	30K TO 60K	2	52.10
32725	28	14	±14	3W	4.5W	15K	30K TO 60K	2	52.10
32745	48	24	±24	3W	4.5W	20K	40K TO 60K	2	52.10
32765	100	50	±50	3W	4.5W	20K	40K TO 60K	2	52.10
32768	150	75	±75	3W	-	10K	30K TO 60K	2	60.03
32771	200	100	±100	3W	-	10K	30K TO 60K	2	60.03
32774	300	150	±150	3W	-	10K	30K TO 60K	2	60.03
33683	10	5	±5	5W	7.5W	15K	30K TO 60K	3	52.10
33703	28	14	±14	5W	7.5W	15K	30K TO 60K	3	52.10
33723	48	24	±24	5W	7.5W	20K	40K TO 60K	3	52.10
33743	100	50	±50	5W	7.5W	20K	40K TO 60K	3	52.10
33746	150	75	±75	5W	-	10K	30K TO 60K	3	60.03
33749	200	100	±100	5W	-	10K	30K TO 60K	3	60.03
33752	300	150	±150	5W	-	10K	30K TO 60K	3	60.03

** Lower Switching Frequency may be used at lower output power.

INPUT 48 VOLTS

Part Number	D.C. OUT VOLTS			MAX. POWER OUT		APPROX. SWITCH FREQ.		SIZE	*** PRICE 1-9
	Bridge	Full Wave	Dual Bridge	-55°C to +105°C	-55°C to +70°C	Self-Saturated	Square-Wave Driven**		
31700	24	12	±12	1.5W	3W	15K	30K TO 60K	1	52.10
31720	48	24	±24	1.5W	3W	20K	40K TO 60K	1	52.10
31740	100	50	±50	1.5W	3W	20K	40K TO 60K	1	52.10
31760	150	75	±75	1.5W	3W	20K	40K TO 60K	1	52.10
32785	24	12	±12	3W	4.5W	15K	30K TO 60K	2	52.10
32805	48	24	±24	3W	4.5W	20K	40K TO 60K	2	52.10
32825	100	50	±50	3W	4.5W	20K	40K TO 60K	2	52.10
32845	150	75	±75	3W	4.5W	20K	40K TO 60K	2	52.10
32848	200	100	±100	3W	4.5W	10K	30K TO 60K	2	60.03
32851	300	150	±150	3W	4.5W	10K	30K TO 60K	2	60.03
33763	24	12	±12	5W	7.5W	15K	30K TO 60K	3	60.03
33783	48	24	±24	5W	7.5W	20K	40K TO 60K	3	60.03
33803	100	50	±50	5W	7.5W	20K	40K TO 60K	3	60.03
33823	150	75	±75	5W	7.5W	20K	40K TO 60K	3	60.03
33826	200	100	±100	5W	-	10K	30K TO 60K	3	60.03
33829	300	150	±150	5W	-	10K	30K TO 60K	3	60.03

** Lower Switching Frequency may be used at lower output power.

***Discount Prices:

1-9 Net;
 10-24 less 10%;
 25-49 less 16%;
 50-99 less 23%;
 100-499 less 30%

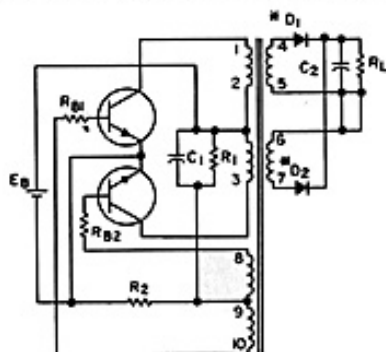
Ordering Instructions:

No minimum.
 Net 30 days F.O.B. Pelham, NY

Features

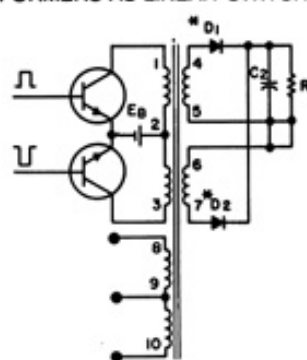
- Units can be used as self-saturating or for linear switching applications. Operation over ambient temperature range from -55° C to +105° C. All units manufactured to the requirements of MIL-PRF-27, Grade 5, Class S.
- All units can be supplied with higher or lower secondary voltages at the same power level.
- Secondary can be connected for full-wave bridge or dual bridge.

SCHEMATIC USING
TRANSFORMERS AS SELF-SATURATING



[Larger Schematic](#)

SCHEMATIC USING
TRANSFORMERS AS LINEAR SWITCHING



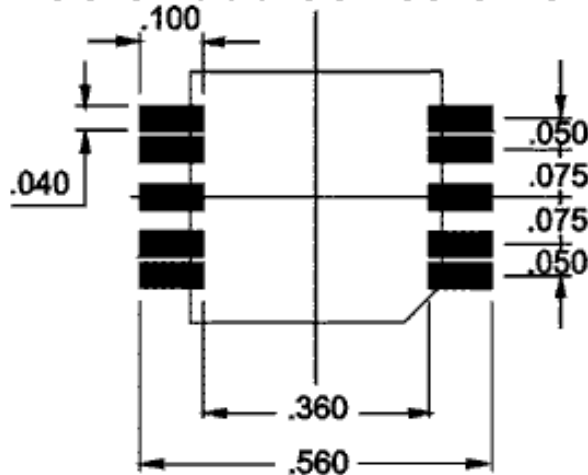
* D1 AND D2 USE SCHOTTKY OR FAST SWITCHING DIODES

[Larger Schematic](#)

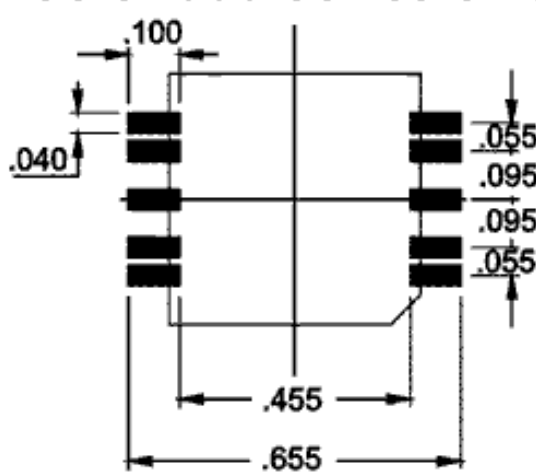
[Click Here for Equivalent Plug-in Version of These Units](#)

RECOMMENDED LAND PATTERN DIMENSIONS

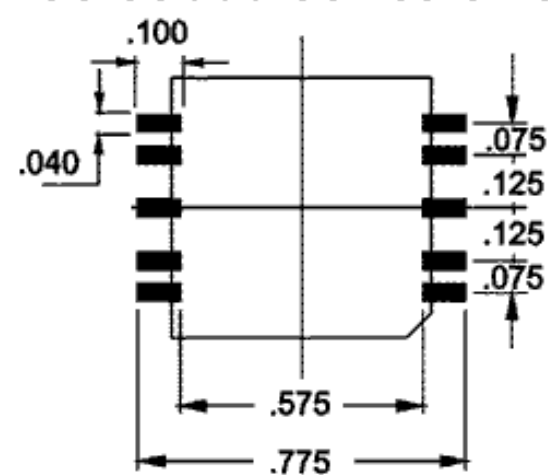
PICO 31000 Series Size 1



PICO 32000 Series Size 2



PICO 33000 Series Size 3



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

PICO Electronics, Inc.

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