



## Miniaturized Power Inductors

**Pico Surface Mount Power Inductors are ideal for Noise, Spike, and Power Filtering Applications in Power Supplies, DC-DC Converters and Switching Regulators.**

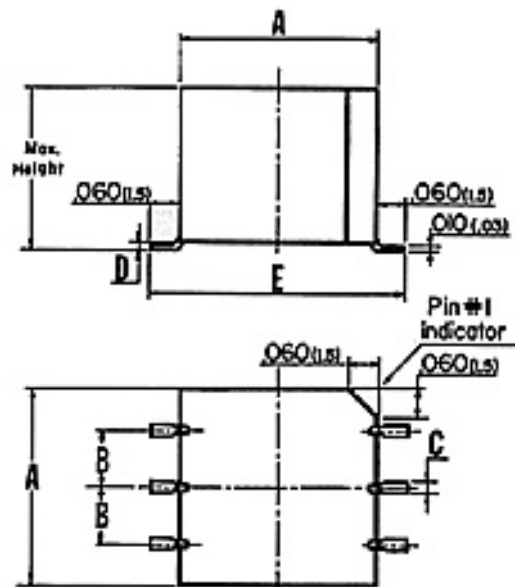
### **SURFACE MOUNT**

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.

- Minimum possible size
- Special high frequency core material to insure low losses
- All units have split windings
- Large selection of sizes available.

### **Specifications**

- All units manufactured to Mil-PRF-27 Grade 5, Class S (Except Size 0 which is Class V)
- Inductance measured at 0.1V RMS -- 10 KHz with zero DC current.  
Tolerance is +10 percent to -5 percent.
- Temperature rise at rated D.C. current is less than 30° C. (Size 0 is less than 50°C)
- Maximum ambient is 100° C.



TERMINALS ARE CLOCKWISE FROM PIN #1  
NOTE: Pins 2 and 5 are dummy pins.  
All dimensions are in inches. ( ) = MM

Bottom View

[Larger size drawing](#)

| Surface Mount              |                 |                 |                |                |                |                 |
|----------------------------|-----------------|-----------------|----------------|----------------|----------------|-----------------|
| in inches (in millimeters) |                 |                 |                |                |                |                 |
| Size                       | Max. Height     | A               | B              | C              | D              | E               |
| 0                          | .280<br>(7.11)  | .325<br>(8.26)  | .085<br>(2.16) | .020<br>(0.51) | .012<br>(0.30) | .445<br>(11.30) |
| 1                          | .310<br>(7.87)  | .400<br>(10.16) | .115<br>(2.92) | .020<br>(0.51) | .012<br>(0.30) | .520<br>(13.21) |
| 2                          | .365<br>(9.27)  | .495<br>(12.57) | .140<br>(3.56) | .027<br>(0.69) | .015<br>(0.38) | .615<br>(15.62) |
| 3                          | .460<br>(11.68) | .615<br>(15.62) | .185<br>(4.70) | .027<br>(0.69) | .020<br>(0.51) | .735<br>(18.66) |

All inductors have split windings--ratings shown in table are for series connection. Parallel connection will have 1/4 inductance at twice the DC current and 1/4 the DC resistance, i.e. parallel connection of PICO 41400 will have 1.25 millihenry at .024 amps with DC resistance of 13.5 Ohms.

| Surface Mount |
|---------------|
|---------------|

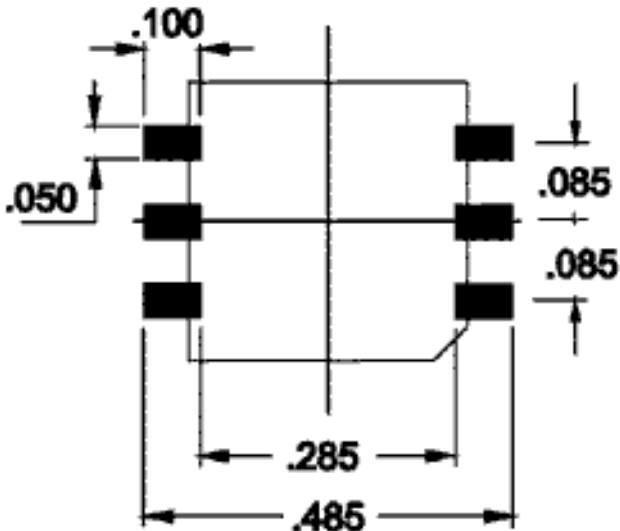
| <b>Inductance</b> | <b>I<br/>DC<br/>(Amps)</b> | <b>R<br/>DC<br/>(Ohms)</b> | <b>SRF MHz</b> | <b>Size</b> | <b>Model<br/>Number</b> | <b>*** Prices 1-9</b> |
|-------------------|----------------------------|----------------------------|----------------|-------------|-------------------------|-----------------------|
| 20 Milli-Henry    | .06                        | 54                         | 0.275          | 1           | 41320                   | 31.40                 |
|                   | .10                        | 29                         | 0.207          | 2           | 42405                   | 31.40                 |
|                   | .14                        | 20                         | 0.230          | 3           | 43403                   | 31.40                 |
| 15 Milli-Henry    | .07                        | 40.5                       | 0.320          | 1           | 41340                   | 31.40                 |
|                   | .12                        | 22                         | 0.240          | 2           | 42425                   | 31.40                 |
|                   | .16                        | 15                         | 0.235          | 3           | 43423                   | 31.40                 |
| 10 Milli-Henry    | .05                        | 75                         | 0.400          | 0           | 40350                   | 31.40                 |
|                   | .08                        | 27                         | 0.380          | 1           | 41360                   | 31.40                 |
|                   | .14                        | 14.6                       | 0.390          | 2           | 42445                   | 31.40                 |
|                   | .20                        | 10                         | 0.340          | 3           | 43443                   | 31.40                 |
| 7.5 Milli-Henry   | .058                       | 56                         | 0.500          | 0           | 40370                   | 31.40                 |
|                   | .10                        | 20.3                       | 0.450          | 1           | 41380                   | 31.40                 |
|                   | .17                        | 11                         | 0.430          | 2           | 42465                   | 31.40                 |
|                   | .24                        | 7.5                        | 0.390          | 3           | 43463                   | 31.40                 |
| 5 Milli-Henry     | .071                       | 38                         | 0.650          | 0           | 40390                   | 31.40                 |
|                   | .12                        | 13.5                       | 0.600          | 1           | 41400                   | 31.40                 |
|                   | .21                        | 7.3                        | 0.490          | 2           | 42485                   | 31.40                 |
|                   | .30                        | 5                          | 0.550          | 3           | 43483                   | 31.40                 |
| 3 Milli-Henry     | .091                       | 22                         | 0.800          | 0           | 40410                   | 31.40                 |
|                   | .16                        | 8.1                        | 0.710          | 1           | 41420                   | 31.40                 |
|                   | .27                        | 4.4                        | 0.650          | 2           | 42505                   | 31.40                 |
|                   | .38                        | 3                          | 0.570          | 3           | 43503                   | 31.40                 |
| 2 Milli-Henry     | .112                       | 18                         | 1.000          | 0           | 40430                   | 31.40                 |
|                   | .19                        | 5.4                        | 0.950          | 1           | 41440                   | 31.40                 |
|                   | .33                        | 2.9                        | 0.850          | 2           | 42525                   | 31.40                 |
|                   | .47                        | 2                          | 0.800          | 3           | 43523                   | 31.40                 |
| 1 Milli-Henry     | .158                       | 8                          | 1.650          | 0           | 40450                   | 31.40                 |
|                   | .27                        | 2.7                        | 1.500          | 1           | 41460                   | 31.40                 |
|                   | .47                        | 1.5                        | 1.200          | 2           | 42545                   | 31.40                 |
|                   | .66                        | 1                          | 1.100          | 3           | 43543                   | 31.40                 |
| 750 Micro-Henry   | .182                       | 6                          | 1.700          | 0           | 40470                   | 31.40                 |
|                   | .31                        | 2                          | 1.550          | 1           | 41480                   | 31.40                 |
|                   | .54                        | 1                          | 1.400          | 2           | 42565                   | 31.40                 |
|                   | .76                        | .75                        | 1.400          | 3           | 43563                   | 31.40                 |
| 500 Micro-Henry   | .224                       | 5                          | 2.300          | 0           | 40490                   | 31.40                 |
|                   | .38                        | 1.3                        | 2.100          | 1           | 41500                   | 31.40                 |
|                   | .66                        | .66                        | 1.900          | 2           | 42585                   | 31.40                 |
|                   | .93                        | .5                         | 1.600          | 3           | 43583                   | 31.40                 |

|                 |      |      |       |   |       |       |
|-----------------|------|------|-------|---|-------|-------|
| 250 Micro-Henry | .316 | 1.9  | 3.300 | 0 | 40510 | 31.40 |
|                 | .53  | .66  | 3.000 | 1 | 41520 | 31.40 |
|                 | .93  | .33  | 2.500 | 2 | 42605 | 31.40 |
|                 | 1.3  | .25  | 2.400 | 3 | 43603 | 31.40 |
| 100 Micro-Henry | .50  | .750 | 4.500 | 0 | 40530 | 31.40 |
|                 | .78  | .300 | 4.000 | 1 | 41540 | 31.40 |
|                 | 1.35 | .170 | 3.900 | 2 | 42625 | 31.40 |
|                 | 1.95 | .110 | 3.500 | 3 | 43623 | 31.40 |
| 40 Micro-Henry  | 0.79 | .4   | 5.500 | 0 | 40550 | 31.40 |
|                 | 1.18 | .141 | 5.000 | 1 | 41560 | 31.40 |
|                 | 2.03 | .070 | 4.500 | 2 | 42645 | 31.40 |
|                 | 2.68 | .060 | 4.500 | 3 | 43643 | 31.40 |

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

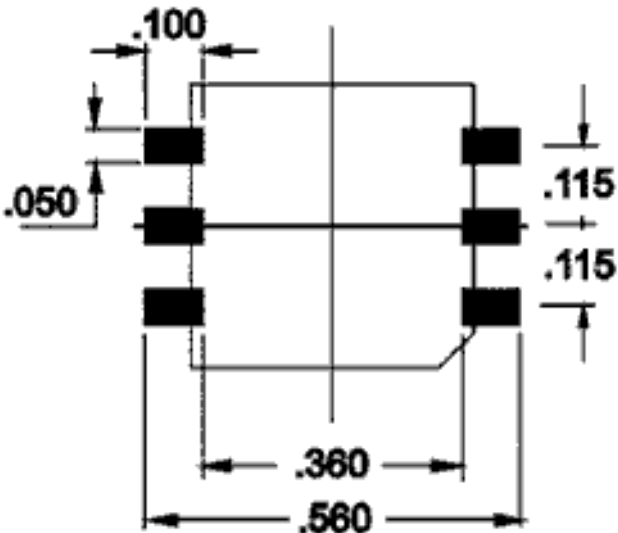
RECOMMENDED LAND PATTERN  
DIMENSIONS

PICO 40000 Series Size 0



RECOMMENDED LAND PATTERN  
DIMENSIONS

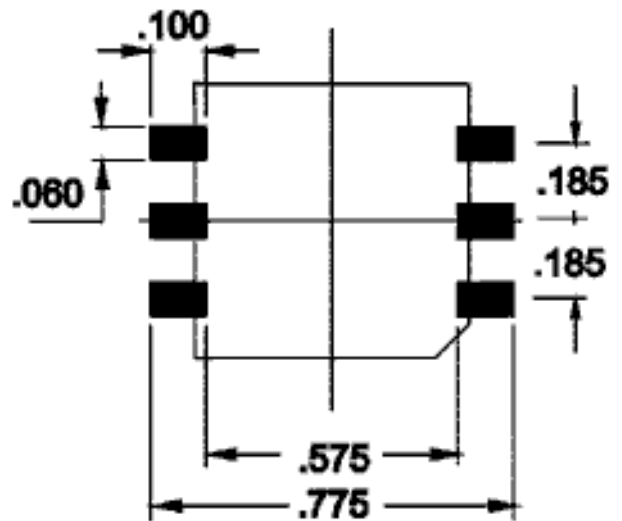
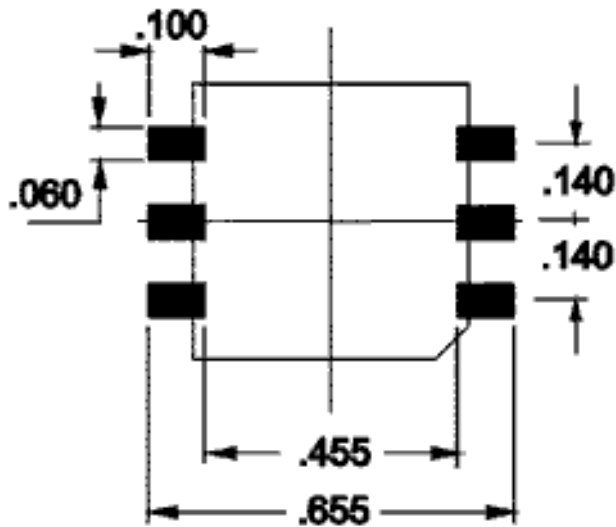
PICO 41000 Series Size 1



RECOMMENDED LAND PATTERN  
DIMENSIONS

RECOMMENDED LAND PATTERN  
DIMENSIONS

# PICO 42000 Series Size 2 PICO 43000 Series Size 3



## \*\*\* Discount Prices:

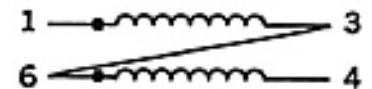
1-9 Net;  
 10-24 less 10%;  
 25-49 less 16%;  
 50-99 less 23%;  
 100-499 less 30%

## Ordering Instructions:

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

**Delivery--stock to one week for sample orders.**

## SURFACE MOUNT TERMINAL ARRANGEMENT SERIES CONNECTION



## SURFACE MOUNT PARALLEL CONNECTION



For immediate engineering assistance or to place an order:

**Call Toll Free: 800-431-1064**

**PICO Electronics, Inc.**

143 Sparks Ave. Pelham, NY 10803-1837

Tel: 914-738-1400 or Fax: 914-738-8225

[Go back to Surface Mount Transformers and Inductors Selections](#)