

## Features

- Fully encapsulated
- Low profile
- Low insertion loss
- Frequency range 10 kHz to 500 MHz
- Impedance levels from 12.5 Ω to 800 Ω (nominal 50 Ω)
- 6 pin DIP and SMD



These series are obsolete and not recommended for new designs.

- RoHS compliant\*\*

## RF2, RF3, RF4 Series - Wideband Transformers

### Electrical Specifications @ 25 °C

Part Number			Ratio Impedance	Frequency MHz	Insertion Loss			Schematic	
Type D	Type W	Type J			3 dB MHz	2 dB MHz	1 dB MHz		
2-1-1D_	2-1-1W_	2-1-1J_	1	.050-200	.050-200	.080-150	.20-80		
2-1-6D_	2-1-6W_	2-1-6J_	1	.030-300	.030-300	.100-150	.20-50		
2-2-1D_	2-2-1W_	2-2-1J_	2	.070-200	.070-200	.100-100	.50-50		
2-2.5-6D_	2-2.5-6W_	2-2.5-6J_	2.5	.010-100	.010-100	.020-50	.05-20		
2-3-1D_	2-3-1W_	2-3-1J_	3	.050-250	.050-250	.100-200	.50-70		
2-4-1D_	2-4-1W_	2-4-1J_	4	.200-350	.200-350	.350-300	2-100		
2-4-6D_	2-4-6W_	2-4-6J_	4	.020-250	.020-250	.050-150	.10-100		
2-5-1D_	2-5-1W_	2-5-1J_	5	.300-300	.300-300	.600-200	5-100		
2-8-1D_	2-8-1W_	2-8-1J_	8	.030-140	.030-140	.100-90	1-60		
2-13-1D_	2-13-1W_	2-13-1J_	13	.300-120	.300-120	.700-80	5-20		
2-16-6D_	2-16-6W_	2-16-6J_	16	.030-75	.030-75	.060-30	10-20		
3-1-1D_	3-1-1W_	3-1-1J_	1	.150-400	.150-400	.350-200	2-50		
3-1-6D_	3-1-6W_	3-1-6J_	1	.010-150	.010-150	.020-100	.05-50		
3-1.5-1D_	3-1.5-1W_	3-1.5-1J_	1.5	.100-300	.100-300	.200-150	.50-80		
3-1.5-6D_	3-1.5-6W_	3-1.5-6J_	1.5	.020-100	.020-100	.050-50	.10-25		
3-2.5-6D_	3-2.5-6W_	3-2.5-6J_	2.5	.010-100	.010-100	.020-50	.05-20		
3-4-6D_	3-4-6W_	3-4-6J_	4	.020-200	.020-200	.050-150	.10-100		
3-9-1D_	3-9-1W_	3-9-1J_	9	.150-200	.150-200	.300-150	2-40		
3-16-1D_	3-16-1W_	3-16-1J_	16	.300-120	.300-120	.700-80	.50-20		
3-36-1D_	3-36-1W_	3-36-1J_	36	.030-20	.030-20	.050-10	.10-5		
4-1-6D_	4-1-6W_	4-1-6J_	1	.040-500	.040-500	.200-200	1-50		
4-1.5-1D_	4-1.5-1W_	4-1.5-1J_	1.5	.075-500	.075-500	.200-100	.10-50		
4-2.5-6D_	4-2.5-6W_	4-2.5-6J_	2.5	.010-50	.010-50	.025-25	.05-10		
4-4-1D_	4-4-1W_	4-4-1J_	4	.050-200	.050-200	.200-50	1-30		
4-25-1D_	4-25-1W_	4-25-1J_	25	.020-30	.020-30	.050-20	.10-10		

### Note

RF2 and RF3 are standard units. RF4 only on request.

Terminal Material: 97Sn/2.5Cu/0.5Ag

Operating Temperature Range: 0 °C to +70 °C

Storage Temperature Range: -40 °C to +85 °C

\*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.

Specifications are subject to change without notice.

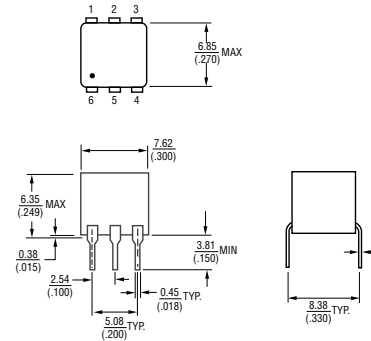
The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time. Users should verify actual device performance in their specific applications.

# RF2, RF3, RF4 Series - Wideband Transformers

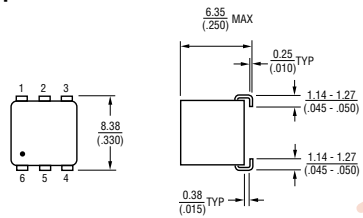
**BOURNS®**

### Product Dimensions

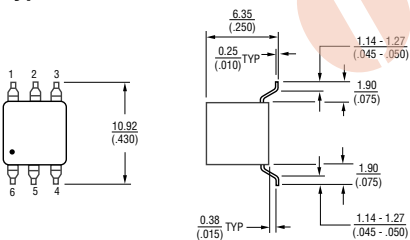
#### Type D



#### Type J



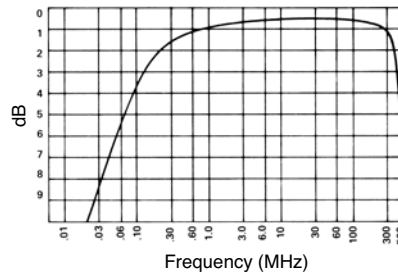
#### Type W



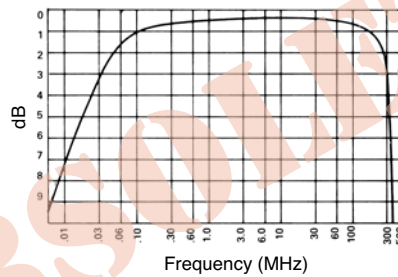
DIMENSIONS:  $\frac{\text{MM}}{\text{(INCHES)}}$

### Typical Frequency Response

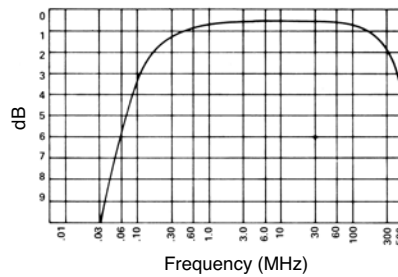
2-4-1 3 dB Bandwidth 0.200-350 MHz



2-3-1 3 dB Bandwidth 0.050-250 MHz



3-1-1 3 dB Bandwidth 0.150-400 MHz



### How To Order

Model \_\_\_\_\_ **x - x - x x** \_\_\_\_\_ **L**

Impedance Ratio \_\_\_\_\_  
(see "Ratio Impedance")

Type Number \_\_\_\_\_

Termination Type \_\_\_\_\_  
(see "Product Dimensions")

D = Through-hole  
W = Surface Mount (Gull-Wing)  
J = Surface Mount ("J" Leads)

Impedance Ratio \_\_\_\_\_  
P = Ratio: Primary to Secondary (R : 1)  
Blank = Ratio: Secondary to Primary (R : 1)  
Where "R" is the Ratio Impedance in Electrical Specifications chart

Packaging \_\_\_\_\_  
E = Tape and Reel (Types J and W only)  
Blank = Tubes (Types D and W only)

Termination Material \_\_\_\_\_  
L = 97Sn/2.5Cu/0.5Ag (RoHS Compliant)

### Packaging

Tape and Reel (Types J and W only)  
..... 700 pcs./reel

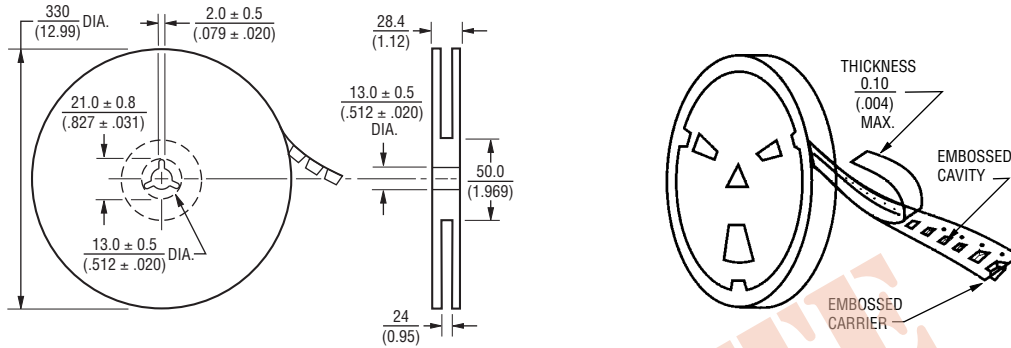
Tubes (Types D and W only)  
..... 68 pcs./tube

Specifications are subject to change without notice.  
The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.  
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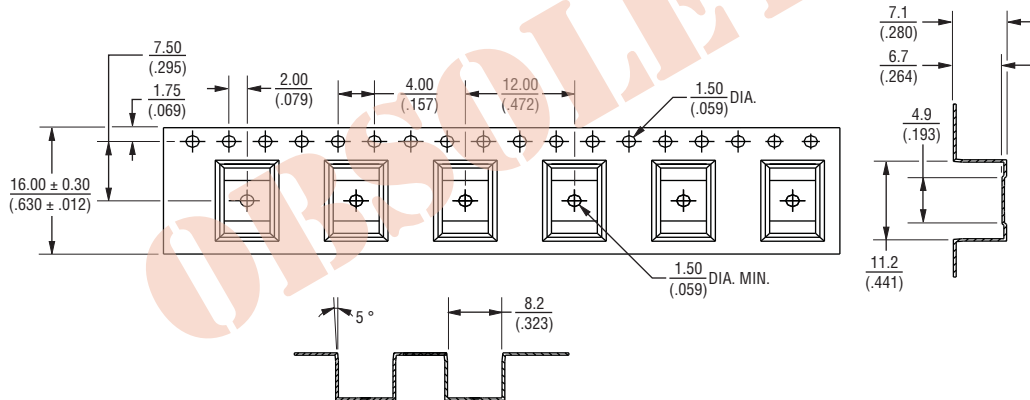
# RF2, RF3, RF4 Series - Wideband Transformers

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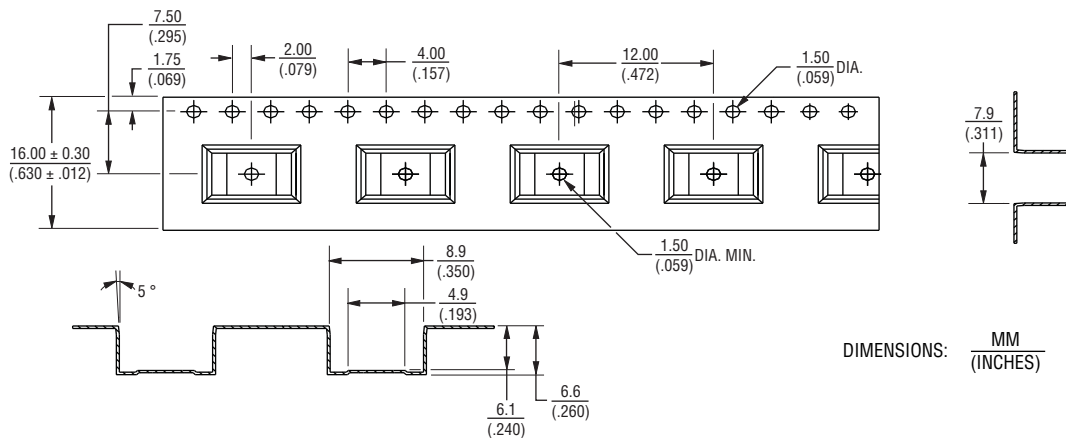
## Packaging Dimensions



## Tape Dimensions for "W" Type



## Tape Dimensions for "J" Type



DIMENSIONS:  $\frac{\text{MM}}{\text{(INCHES)}}$

REV. 08/14

Specifications are subject to change without notice. The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time. Users should verify actual device performance in their specific applications.

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[3-1.5-1J](#) [3-9-1J](#) [2-13-1J](#) [3-2.4-6J](#) [3-16-1J](#) [2-8-1D](#) [2-8-1J](#) [3-1-1D](#) [3-1-1W](#) [3-2-1J](#) [2-4-6DL](#) [2-13-1JEL](#) [2-1-6JEL](#) [2-1-6WEL](#) [2-1-6WPL](#) [2-2.5-6JEL](#) [2-2-1JEL](#) [2-4-1JEL](#) [2-4-6DPL](#) [2-4-6JEL](#) [2-5-1JEL](#) [3-1-1JEL](#) [3-16-1JPEL](#) [3-16-1WL](#)  
[3-1-6JEL](#) [3-2.5-6JEL](#) [3-1.5-1W](#) [2-4-6W](#) [2-4-6J](#) [2-4-6D](#) [2-4-1W](#) [2-4-1J](#) [2-4-1D](#) [2-3-1D](#) [2-3-1J](#) [2-16-6W](#) [2-1-1W](#)  
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[3-1-6DL](#) [3-1-6JL](#) [3-1-6WL](#) [3-2.15-6JL](#) [3-2.4-6JL](#) [3-2.5-6DL](#) [3-2.5-6JL](#) [3-2-1JL](#) [3-4-6DL](#) [3-4-6JL](#) [3-4-6WL](#) [3-9-1JL](#)  
[3-9-1WL](#) [2-2.5-6WEL](#)