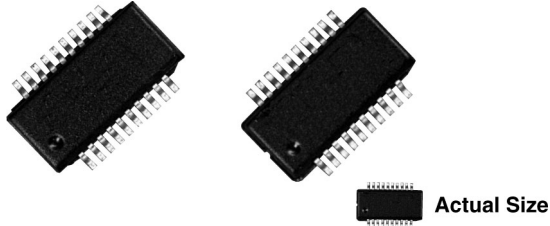
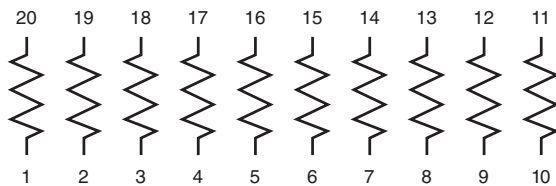


## Molded, 25 mil Pitch, Dual-In-Line Resistor, Surface Mount Network



OSOP Series resistor networks feature a space saving 25 mil lead pitch versus the current 50 mil pitch standard. This allows users to reduce board space more than 50 % over current standards. The OSOP Series feature 10 isolated resistors in a 20 lead style available for immediate delivery in the standard values listed.

### SCHEMATIC



### FEATURES

- 0.068" (1.73 mm) maximum seated height
- Rugged molded case construction with no internal solder
- JEDEC MO-137 variation AD
- Compliant to RoHS directive 2002/95/EC


**RoHS\***  
COMPLIANT

### TYPICAL PERFORMANCE

	ABSOLUTE	TRACKING
TCR	25	5
	ABSOLUTE	RATIO
TOL.	0.1	0.05

### STANDARD RESISTANCE OFFERING ( $R_1 =$ )

500 $\Omega$	10 k $\Omega$
1 k $\Omega$	20 k $\Omega$
2 k $\Omega$	50 k $\Omega$
5 k $\Omega$	100 k $\Omega$

#### Note

- Consult factory for additional values and schematics

### STANDARD ELECTRICAL SPECIFICATIONS

TEST	SPECIFICATIONS	CONDITIONS
Material	Passivated nichrome	-
Pin/Lead Number	20	-
Resistance Range	500 $\Omega$ to 100 k $\Omega$ per resistor	-
TCR: Absolute	$\pm 25$ ppm/ $^{\circ}$ C	- 55 $^{\circ}$ C to + 125 $^{\circ}$ C
TCR: Tracking	$\pm 5$ ppm/ $^{\circ}$ C	- 55 $^{\circ}$ C to + 125 $^{\circ}$ C
Tolerance: Absolute	$\pm 0.1$ % to 1 %	+ 25 $^{\circ}$ C
Tolerance: Ratio	$\pm 0.025$ % to 0.5 %	+ 25 $^{\circ}$ C
Power Rating: Resistor	100 mW	Maximum at + 70 $^{\circ}$ C
Power Rating: Package	400 mW	Maximum at + 70 $^{\circ}$ C
Stability: Absolute	$\Delta R \pm 0.05$ %	2000 h at + 70 $^{\circ}$ C
Stability: Ratio	$\Delta R \pm 0.015$ %	2000 h at + 70 $^{\circ}$ C
Voltage Coefficient	< 0.1 ppm/V (typical)	-
Working Voltage	100 V max. not to exceed $\sqrt{P \times R}$	-
Operating Temperature Range	- 55 $^{\circ}$ C to + 125 $^{\circ}$ C	-
Storage Temperature Range	- 55 $^{\circ}$ C to + 150 $^{\circ}$ C	-
Noise	< - 30 dB	-
Thermal EMF	0.08 $\mu$ V/ $^{\circ}$ C	-
Shelf Life Stability: Absolute	$\Delta R \pm 0.01$ %	1 year at + 25 $^{\circ}$ C
Shelf Life Stability: Ratio	$\Delta R \pm 0.002$ %	1 year at + 25 $^{\circ}$ C

\* Pb containing terminations are not RoHS compliant, exemptions may apply

## DIMENSIONS AND IMPRINTING in inches and millimeters

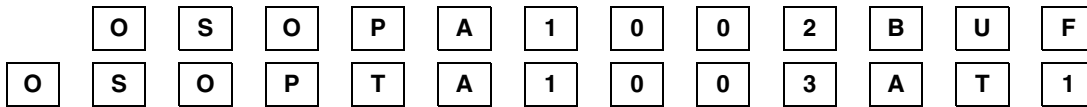
	DIMENSION	INCHES	MILLIMETERS
	A	0.344	8.74
B	0.154	3.91	
C	0.237	6.02	
D	0.025	0.635	
E	0.010 ± 0.002	0.25 ± 0.05	
F	0.062	1.58	
G	0.068	1.73	
H	0.010 ± 0.002	0.25 ± 0.05	
I	0.025	0.64	
J	0.057	1.47	

## MECHANICAL SPECIFICATIONS

Resistive Element	Passivated nichrome
Substrate Material	Silicon
Body	Molded epoxy
Terminals	Copper alloy
Lead (Pb)-free Option	100 % matte tin
Tin Lead Option	Sn90
Tin Lead and Lead (Pb)-free Finish	Plated

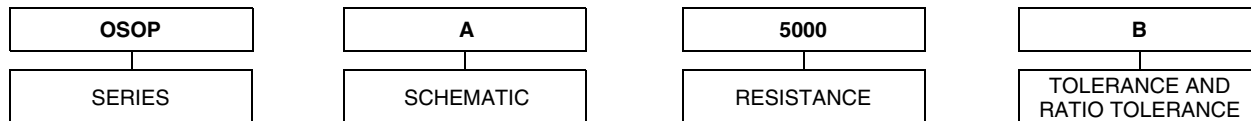
## GLOBAL PART NUMBER INFORMATION

New Global Part Numbering: OSOPA1002BUF



GLOBAL MODEL (4 or 5 digits)	SCHEMATIC	RESISTANCE	TOLERANCE AND RATIO TOLERANCE	PACKAGING														
<b>OSOP</b> (Tin Lead)  <b>OSOPT</b> (Lead (Pb)-free) (e3)	<b>A</b> = 10 nominally equal resistors with each resistor isolated from all others and wires directly across	First 3 digits are significant figures and the last digit specifies the number of zeroes to follow.  Example: 1002 = 10K 1003 = 100K	<table border="1"> <thead> <tr> <th>Abs. Tol.</th> <th>Ratio</th> </tr> </thead> <tbody> <tr> <td><b>A</b> = 0.1 % <sup>(1)</sup></td> <td>0.05 %</td> </tr> <tr> <td><b>B</b> = 0.1 %</td> <td>0.1 %</td> </tr> <tr> <td><b>C</b> = 0.25 %</td> <td>0.1 %</td> </tr> <tr> <td><b>D</b> = 0.5 %</td> <td>0.1 %</td> </tr> <tr> <td><b>F</b> = 1 %</td> <td>0.5 %</td> </tr> <tr> <td><b>Z</b> = 0.1 % <sup>(1)</sup></td> <td>0.025 %</td> </tr> </tbody> </table>	Abs. Tol.	Ratio	<b>A</b> = 0.1 % <sup>(1)</sup>	0.05 %	<b>B</b> = 0.1 %	0.1 %	<b>C</b> = 0.25 %	0.1 %	<b>D</b> = 0.5 %	0.1 %	<b>F</b> = 1 %	0.5 %	<b>Z</b> = 0.1 % <sup>(1)</sup>	0.025 %	<b>TAPE AND REEL</b> <b>T0</b> = 100 min., 100 mult <b>T1</b> = 1000 min., 1000 mult <sup>(2)</sup> <b>T3</b> = 300 min., 300 mult <b>T5</b> = 500 min., 500 mult <b>TF</b> = Full reel 2500 <b>TS</b> = 100 min., 1 mult  <b>UF</b> = TUBED
Abs. Tol.	Ratio																	
<b>A</b> = 0.1 % <sup>(1)</sup>	0.05 %																	
<b>B</b> = 0.1 %	0.1 %																	
<b>C</b> = 0.25 %	0.1 %																	
<b>D</b> = 0.5 %	0.1 %																	
<b>F</b> = 1 %	0.5 %																	
<b>Z</b> = 0.1 % <sup>(1)</sup>	0.025 %																	

Historical Part Number example: OSOPA5000B (for reference purposes only)



### Notes

- (1) Tolerance available 1K and up
- (2) Preferred packaging code



## Disclaimer

All product specifications and data are subject to change without notice.

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