



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

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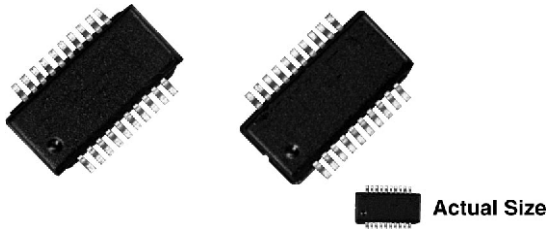
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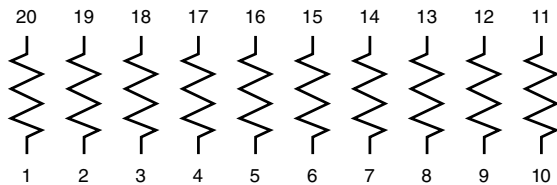


## Molded, 25 mil Pitch, Dual-In-Line Thin Film Resistor, Surface Mount Network



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
- Halogen-free according to IEC 61249-2-21 definition



### Note

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

### TYPICAL PERFORMANCE

	ABSOLUTE	TRACKING
TCR	25	5
	ABSOLUTE	RATIO
TOL.	0.1	0.05

### STANDARD RESISTANCE OFFERING (R<sub>1</sub> =)

500 Ω	10 kΩ
1 kΩ	20 kΩ
2 kΩ	50 kΩ
5 kΩ	100 kΩ

### Note

- Consult factory for additional values and schematics

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

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

O	S	O	P	A	1	0	0	2	B	U	F	
O	S	O	P	T	A	1	0	0	3	A	T	1

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

OSOP	A	5000	B
SERIES	SCHEMATIC	RESISTANCE	TOLERANCE AND RATIO TOLERANCE

**Notes**

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



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