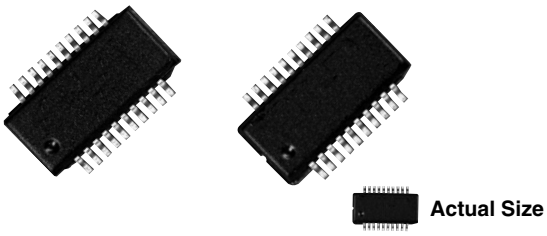
OSOP

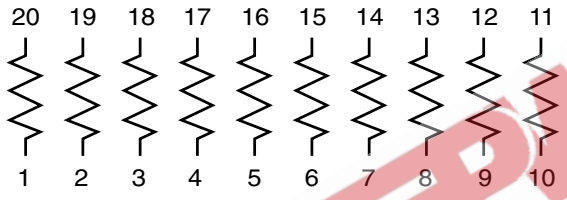
Vishay Thin Film

Molded, 25 Mil Pitch, Dual-In-Line Resistor 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

- Lead (Pb)-free available
- 0.068" (1.73 mm) maximum seated height
- Rugged molded case construction with no internal solder
- Thin film element
- JEDEC MO #137 Package AD

Pb-free Available

RoHS* COMPLIANT

TYPICAL PERFORMANCE

	ABS	TRACKING
TCR	25	5
	ABS	RATIO
TOL	0.1	0.05

STANDARD RESISTANCE OFFERING (R_1 =)	
500 Ω	10 kΩ
1 kΩ	20 kΩ
2 kΩ	50 kΩ
5 kΩ	100 kΩ

Consult factory for additional values

STANDARD ELECTRICAL SPECIFICATIONS			
TEST		SPECIFICATIONS	CONDITIONS
Material		Passivated Nichrome	
TCR:	Tracking	± 5 ppm/°C	- 55 °C to + 125 °C
	Absolute	± 25 ppm/°C	- 55 °C to + 125 °C
Tolerance:	Ratio	± 0.025 %, ± 0.1 %, ± 0.05 %	+ 25 °C
	Absolute	± 0.1 %, ± 0.5 %, ± 0.25 %, ± 0.1 %	+ 25 °C
Power Rating:	Resistor	100 mW	Max. at + 70 °C
	Package	400 mW	Max. at + 70 °C
Stability:	ΔR Absolute	500 ppm	2000 h at + 70 °C
	ΔR Ratio	150 ppm	2000 h at + 70 °C
Voltage Coefficient		< 0.1 ppm/V typical	
Working Voltage		100 V Max.	
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	100 ppm	1 year at + 25 °C
	Ratio	20 ppm	1 year at + 25 °C

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

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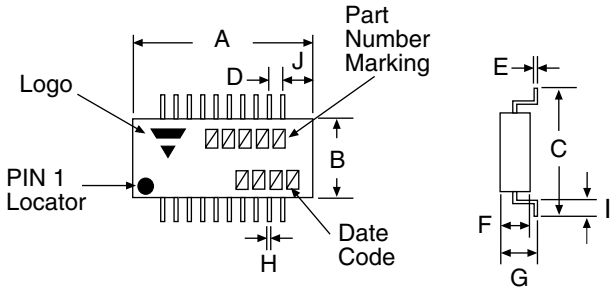
DIMENSIONS AND IMPRINTING in inches and millimeters



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 194 solderable
Lead Coplanarity	± 0.004" (± 0.50 mm)
Marking Resistance to Solvents	per MIL-PRF-83401
Lead (Pb)-free Option	100 % Sn Matte
Lead (Pb)-free Finish	Plated

GLOBAL PART NUMBER INFORMATION

New Global Part Numbering: OSOPA1002BUF (preferred part number format)

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)

OSOP (Tin Lead)

OSOPT (Lead (Pb)-free) (e3)

SCHEMATIC

A = 10 nominally equal resistors with each resistor isolated from all others and wires directly across

RESISTANCE

First 3 digits are significant figures and the last digit specifies the number of zeroes to follow.

Example:
1002 = 10K
1003 = 100K

TOLERANCE AND RATIO TOLERANCE

Abs. Tol.	Ratio
***A** = 0.1 %	0.05 %
B = 0.1 %	0.1 %
C = 0.25 %	0.1 %
D = 0.5 %	0.1 %
F = 1 %	0.5 %
***Z** = 0.1 %	0.025 %

* Tol. available 1K and up

PACKAGING

TAPE AND REEL
T0 = 100 Min 100 Mult
T1 = 1000 Min 1000 Mult
T3 = 300 Min 300 Mult
T5 = 500 Min 500 Mult
TF = Full Reel 2500
TS = 100 Min 1 Mult

UF = TUBED

Historical Part Number example: OSOPA5000B (will continue to be accepted)

OSOP	A	5000	B
SERIES	SCHEMATIC	RESISTANCE	TOLERANCE AND RATIO TOLERANCE

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