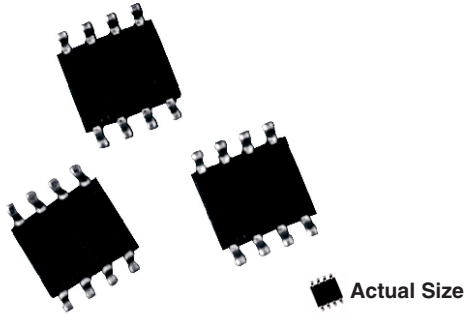
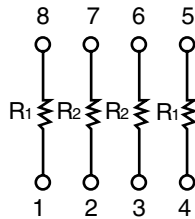


## Molded, 50 Mil Pitch, Dual-In-Line Resistor Network



Vishay Thin Film ORN series Dividers provide optimum ratio precision, small size and exceptional stability for most applications. They offer a wide ratio range that is listed in the selection guide and are available for immediate delivery. The tight ratio tolerance offered on the standard ratios will provide exceptional performance throughout life.

### SCHEMATIC



### FEATURES

- Lead (Pb)-free available
- 0.068" (1.73 mm) maximum seated height
- Rugged molded case construction with no internal solder (JEDEC MS-012 standard)
- Thin film passivity Microbe element
- Low temperature coefficient ( $\pm 25$  ppm/ $^{\circ}$ C)


**RoHS\***  
COMPLIANT

### TYPICAL PERFORMANCE

	ABS	TRACKING
TCR	25	5
	ABS	RATIO
TOL	0.1	0.05

### STANDARD RESISTANCE OFFERING (R<sub>1</sub>/R<sub>2</sub>)

RATIO	R <sub>1</sub>	R <sub>2</sub>
100:1	100K	1K
50:1	50K	1K
25:1	25K	1K
20:1	20K	1K
10:1	10K	1K
5:1	10K	2K
2:1	10K	5K

### STANDARD ELECTRICAL SPECIFICATIONS

TEST	SPECIFICATIONS	CONDITIONS
<b>Material</b>	Passivated Nichrome	
<b>TCR:</b>	<b>Tracking</b>	$\pm 5$ ppm/ $^{\circ}$ C
	<b>Absolute</b>	$\pm 25$ ppm/ $^{\circ}$ C
<b>Tolerance:</b>	<b>Ratio</b>	$\pm 0.05$ %
	<b>Absolute</b>	$\pm 0.1$ %
<b>Power Rating:</b>	<b>Resistor</b>	100 mW
	<b>Package</b>	400 mW
<b>Stability:</b>	<b><math>\Delta R</math> Absolute</b>	500 ppm
	<b><math>\Delta R</math> Ratio</b>	150 ppm
<b>Voltage Coefficient</b>	< 0.1 ppm/V	
<b>Working Voltage</b>	50 V (Max.)	
<b>Operating Temperature Range</b>	- 55 $^{\circ}$ C to + 125 $^{\circ}$ C	
<b>Storage Temperature Range</b>	- 55 $^{\circ}$ C to + 150 $^{\circ}$ C	
<b>Noise</b>	< - 30 dB	
<b>Thermal EMF</b>	0.08 $\mu$ V/ $^{\circ}$ C	
<b>Shelf Life Stability:</b>	<b>Absolute</b>	100 ppm
	<b>Ratio</b>	20 ppm
		1 year at + 25 $^{\circ}$ C
		1 year at + 25 $^{\circ}$ C

**Note:** Tantalum Nitride film is custom, consult factory

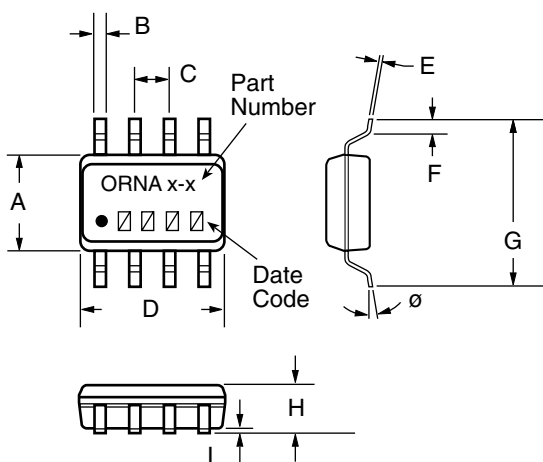
\* Pb containing terminations are not RoHS compliant, exemptions may apply

# ORN (Divider)

Vishay Thin Film Molded, 50 Mil Pitch, Dual-In-Line Resistor Network



## DIMENSIONS AND IMPRINTING in inches and millimeters



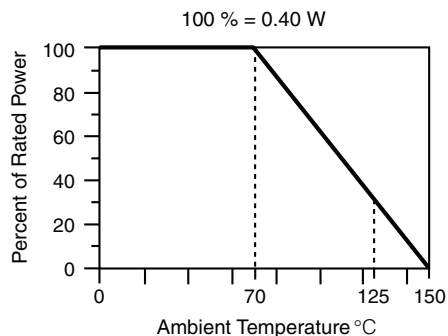
DIMENSION	INCHES	MM
A	0.157	3.99
B	0.0165 ± 0.005	0.4 ± 0.06
C	0.050	1.27
D	0.195 Max.	4.93
E	0.008 ± 0.001	0.20 ± 0.03
F	0.028 ± 0.001	0.71 ± 0.02
G	0.239 ± 0.005	6.07 ± 0.13
H	0.068 Max.	1.73
I	0.008 ± 0.002	0.22 ± 0.06
Ø	2° to 6°	

### Notes

1. Leads are within 0.005" (0.13 mm) of true position
2. Leads coplanar to ± 0.004" (± 0.50 mm)
3. Marking - VISHAY Symbol, Part Number from Ordering Information

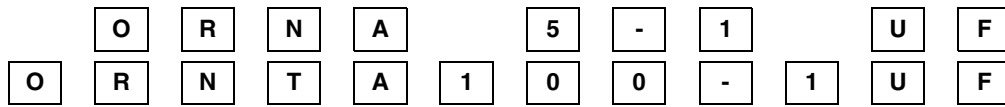
MECHANICAL SPECIFICATIONS	
Resistive Element	Passivated Nichrome
Body	Molded epoxy
Package Format	JEDEC MS-012
Terminals	Copper alloy
Solderability	Per MIL-PRF-83401
Marking Resistance to Solvents	Permanency testing per MIL-PRF-83401
Lead (Pb)-free Option	100 % Matte Tin
Lead (Pb)-free Finish	Plated

## DERATING CURVE



## GLOBAL PART NUMBER INFORMATION

New Global Part Numbering: ORNA5-1UF (preferred part number format)

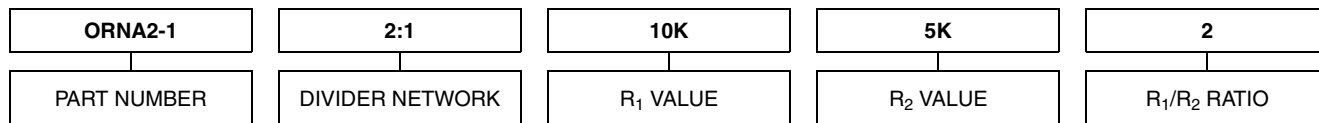


GLOBAL MODEL (4 or 5 digits)
<b>ORNA</b> (Tin/Lead)
<b>ORNTA</b> (Lead (Pb)-free) (e3)

RESISTANCE (3, 4 or 5 digits)
2-1
5-1
10-1
20-1
25-1
50-1
100-1

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 3000
TS = 100 Min 1 Mult
UF = TUBED

Historical Part Number example: ORNA2-1 (will continue to be accepted)





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