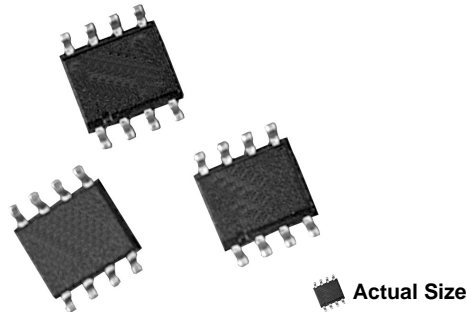


# ORN (Divider)



Vishay Thin Film

## 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.

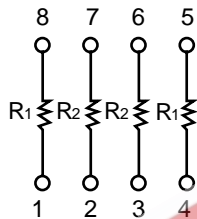
### FEATURES

- 0.068" (1.73mm) maximum seated height
- Rugged molded case construction with no internal solder (JEDEC MS-012 standard)
- Highly stable thin film
- Low temperature coefficient

### TYPICAL PERFORMANCE

TCR	ABS	TRACKING
	25	5
TOL	ABS	RATIO
	0.1	0.05

### SCHEMATIC



STANDARD DIVIDER RATIOS (R <sub>1</sub> / R <sub>2</sub> )		
RATIO	R1	R2
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
MATERIAL	TAMELOX®	
TCR:	Tracking	± 5ppm/°C
	Absolute	± 25ppm/°C
Tolerance:	Ratio	± 0.05%
	Absolute	± 0.1%
Power Rating:	Resistor	100mWatt
	Package	400mWatt
Stability:	ΔR Absolute	500ppm
	ΔR Ratio	150ppm
Voltage Coefficient	< 0.1ppm/Volt	
Working Voltage	50 Volts (Max.)	
Operating Temperature Range	- 55°C to + 125°C	
Storage Temperature Range	- 55°C to + 150°C	
Noise	< - 30dB	
Thermal EMF	0.08μV/°C	
Shelf Life Stability:	Absolute	100ppm
	Ratio	20ppm
		1 year @ + 25°C
		1 year @ + 25°C

\*Tantalum Nitride film is custom, consult factory.

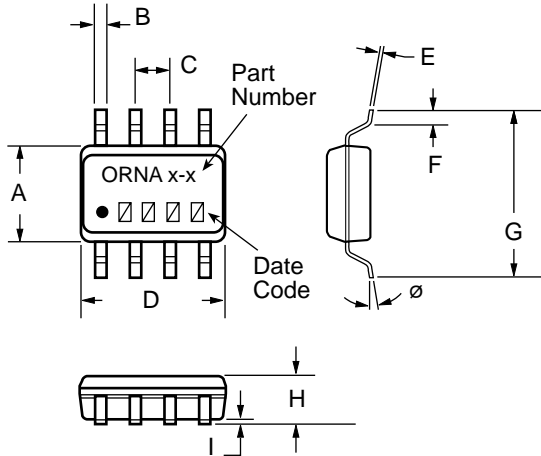
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 • GERMANY +49.9287.710 FAX: +49.9287.70435 • JAPAN +81.42.729.0661 FAX: +81.42.729.3400 • UK +44 191 514 8237 FAX: +44 1953 457 722  
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# ORN (Divider)

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

## DIMENSIONS AND IMPRINTING in inches and millimeters



DIMENSION	INCHES	MILLIMETERS
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°	

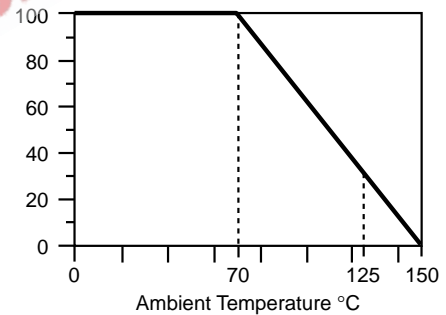
### NOTE:

1. Leads are within 0.005" (0.13mm) 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	Tamelox®
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

### DERATING CURVE

Percent of Rated Power 100% = 0.40W



## How to Order

Part Number	Divider Network	R <sub>1</sub> value	R <sub>2</sub> value	R <sub>1</sub> /R <sub>2</sub> ratio
ORNA2-1	2:1	10K	5K	2
ORNA5-1	5:1	10K	2K	5
ORNA10-1	10:1	10K	1K	10
ORNA20-1	20:1	20K	1K	20
ORNA25-1	25:1	25K	1K	25
ORNA50-1	50:1	50K	1K	50
ORNA100-1	100:1	100K	1K	100

**Example:** ORNA2-1 is a 8 pin small outline molded network with 2 - 10K ohm resistor and 2 - 5K ohm resistor, 0.1% absolute tolerance and 0.05% ratio to R<sub>1</sub>.

All parts are shipped in tubes unless tape and reel packaging is requested

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