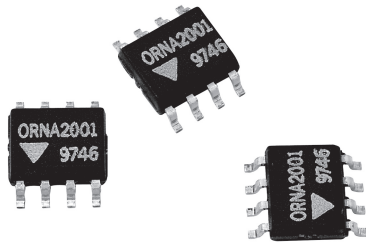


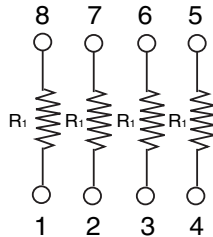
Molded, 50 Mil Pitch, Dual-In-Line Resistor Network



Actual Size

ORN series resistor networks feature four isolated resistors with standard 50 mil pitch lead spacing. The networks feature close TCR tracking and tight ratio tolerance and are ideally suited for unity gain operational amplifier circuitry. The standard resistance offering listed are available for immediate delivery.

SCHEMATIC



FEATURES

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



RoHS*
COMPLIANT

TYPICAL PERFORMANCE

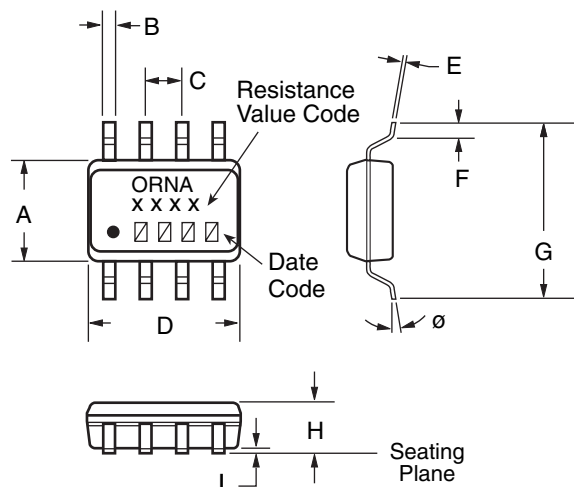
	ABS	TRACKING
TCR	25	5
	ABS	RATIO
TOL	0.1	0.05

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

Consult factory for additional values

STANDARD ELECTRICAL SPECIFICATIONS			
TEST		SPECIFICATIONS	CONDITIONS
Material		Passivated Nichrome	
TCR:	Tracking	± 5 ppm/ $^{\circ}$ C	- 55 $^{\circ}$ C to + 125 $^{\circ}$ C
	Absolute	± 25 ppm/ $^{\circ}$ C	- 55 $^{\circ}$ C to + 125 $^{\circ}$ C
Tolerance:	Ratio	± 0.5 % to ± 0.01 %	+ 25 $^{\circ}$ C
	Absolute	± 1.0 % to ± 0.05 %	+ 25 $^{\circ}$ C
Power Rating:	Resistor	100 mW	Max. at + 70 $^{\circ}$ C
	Package	400 mW	Max. at + 70 $^{\circ}$ C
Stability:	ΔR Absolute	500 ppm	2000 h at + 70 $^{\circ}$ C
	ΔR Ratio	150 ppm	2000 h at + 70 $^{\circ}$ C
Voltage Coefficient		0.1 ppm/V typical	
Working Voltage		50 V	
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 μ V/ $^{\circ}$ C	
Shelf Life Stability:	Absolute	100 ppm	1 year at + 25 $^{\circ}$ C
	Ratio	20 ppm	1 year at + 25 $^{\circ}$ C

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

DIMENSIONS AND IMPRINTING in inches and millimeters

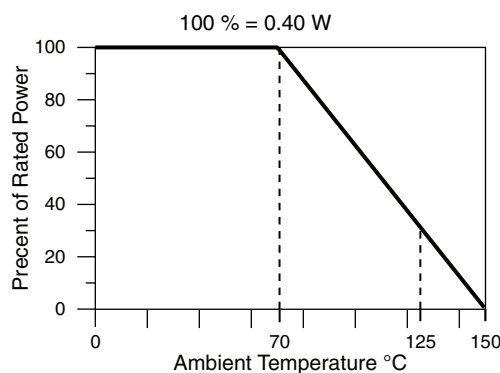
DIMENSION	INCHES	MM
A	0.157	3.99
B	0.0165 ± 0.0025	0.4 ± 0.06
C	0.050	1.27
D	0.195 Max.	4.93
E	0.008 ± 0.001	0.20 ± 0.03
F	0.028 ± 0.001	0.71 ± 0.02
G	0.239 ± 0.005	6.07 ± 0.13
H	0.068 Max.	1.73
I	0.008 ± 0.002	0.22 ± 0.06
Ø	2° to 6°	

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
Terminals	Copper Alloy, solderable
Solderability	Per MIL-PRF-83401
Marking Resistance to Solvents	Permanency testing per MIL-PRF-83401
Lead (Pb)-free Option	100 % Sn Matte
Lead (Pb)-free Finish	Plated

DERATING CURVE**GLOBAL PART NUMBER INFORMATION**

New Global Part Numbering: ORNA1002AUF (preferred part number format)

O R N A 1 0 0 2 A U F											
O R N T A 1 0 0 3 Z T S											
GLOBAL MODEL (3 or 4 digits)	SCHEMATIC		RESISTANCE		TOLERANCE AND RATIO TOLERANCE		PACKAGING				
ORN (Tin Lead) ORNT (Lead (Pb)-free) (e3)	A = 4 isolated equal resistors		The first 3 digits are significant figures and the last digit specifies the number of zeros to follow. Example: 1002 = 10K 1003 = 100K 4991 = 4.99K		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 % *Q = ± 0.05 % ± 0.01 % *Z = ± 0.1 % ± 0.025 % * Tol. available 1K and up		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: ORNA1001F (will continue to be accepted)

ORN	A	1001	F
SERIES	SCHEMATIC	RESISTANCE	TOLERANCE AND RATIO TOLERANCE



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