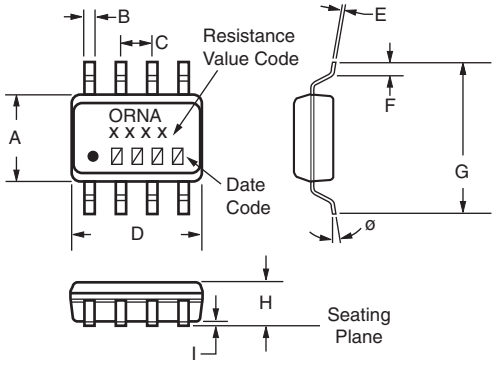
DIMENSIONS AND IMPRINTING in inches and millimeters



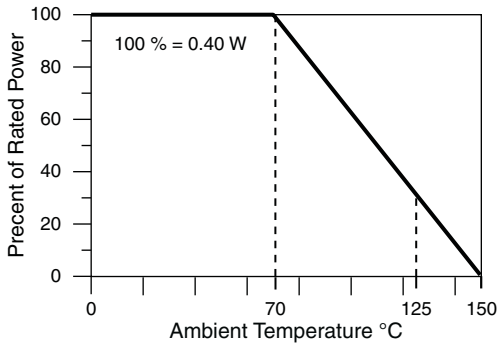
DIMENSION	INCHES	MILLIMETERS
A	0.157	3.99
B	0.0165 ± 0.0025	0.4 ± 0.06
C	0.050	1.27
D	0.195 max.	4.93
E	0.008 ± 0.001	0.20 ± 0.03
F	0.028 ± 0.001	0.71 ± 0.02
G	0.239 ± 0.005	6.07 ± 0.13
H	0.068 max.	1.73
I	0.008 ± 0.002	0.22 ± 0.06
Ø	2° to 6°	2° to 6°

Note
- Marking - Vishay symbol, part number from ordering information

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

DERATING CURVE



GLOBAL PART NUMBER INFORMATION

New Global Part Numbering: ORNA1002AUF

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)

ORN (Tin lead)

ORNT (Lead (Pb)-free) (e3)

SCHEMATIC

A = 4 isolated equal resistors

RESISTANCE

The first 3 digits are significant figures and the last digit specifies the number of zeros to follow. R designates the decimal point.

Example:
1002 = 10 kΩ
1003 = 100 kΩ
4991 = 4.99 kΩ
50R0 = 50 Ω

TOLERANCE AND RATIO TOLERANCE

Abs. Tol.	Ratio
A = ± 0.1 % (3)	± 0.05 %
B = ± 0.1 %	± 0.1 %
C = ± 0.25 %	± 0.1 %
D = ± 0.5 %	± 0.1 %
F = ± 1 %	± 0.5 %
Q = ± 0.05 % (1)	± 0.01 %
Z = ± 0.1 % (1)	± 0.025 %

PACKAGING

TAPE AND REEL
T0 = 100 min., 100 mult
T1 = 1000 min., 1000 mult (2)
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 (for reference purposes only)

ORN	A	1001	F
SERIES	SCHEMATIC	RESISTANCE	TOLERANCE AND RATIO TOLERANCE

Notes
(1) Tol. available 1K and up
(2) Preferred packaging code
(3) Ratio tolerance available 250 Ω and up

Disclaimer

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, “Vishay”), disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product.

Vishay makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, Vishay disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on Vishay’s knowledge of typical requirements that are often placed on Vishay products in generic applications. Such statements are not binding statements about the suitability of products for a particular application. It is the customer’s responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and/or specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer’s technical experts. Product specifications do not expand or otherwise modify Vishay’s terms and conditions of purchase, including but not limited to the warranty expressed therein.

Except as expressly indicated in writing, Vishay products are not designed for use in medical, life-saving, or life-sustaining applications or for any other application in which the failure of the Vishay product could result in personal injury or death. Customers using or selling Vishay products not expressly indicated for use in such applications do so at their own risk. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay. Product names and markings noted herein may be trademarks of their respective owners.

Material Category Policy

Vishay Intertechnology, Inc. hereby certifies that all its products that are identified as RoHS-Compliant fulfill the definitions and restrictions defined under Directive 2011/65/EU of The European Parliament and of the Council of June 8, 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (EEE) - recast, unless otherwise specified as non-compliant.

Please note that some Vishay documentation may still make reference to RoHS Directive 2002/95/EC. We confirm that all the products identified as being compliant to Directive 2002/95/EC conform to Directive 2011/65/EU.

Vishay Intertechnology, Inc. hereby certifies that all its products that are identified as Halogen-Free follow Halogen-Free requirements as per JEDEC JS709A standards. Please note that some Vishay documentation may still make reference to the IEC 61249-2-21 definition. We confirm that all the products identified as being compliant to IEC 61249-2-21 conform to JEDEC JS709A standards.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Vishay:

ORNA1002BUF ORNA1002ZT5 ORNA1003ZUF ORNA2002BUF ORNA5000AUF ORNA5001DUF ORNA5000DTS ORNTA1001BUF ORNTA2001BUF ORNTA1002AT5 ORNTA1002AUF ORNTA2002ZUF ORNTA2002BUF ORNTA1002BUF ORNTA5000AUF ORNTA2001AUF ORNTA1002ZUF ORNTA5001DUF ORNTA1003ZUF ORNTA1001FUF ORNTA1001ZUF ORNTA5001ZUF ORNTA1002DUF ORNTA1003AUF ORNA1002DT5 ORNTA1002QT1 ORNTA1001ZT5 ORNTA2002AT5 ORNA5001ZUF ORNA1002BT1 ORNTA2001QT1 ORNA1002AT1 ORNA1003AT1 ORNA5001AT1 ORNA5002AT1 ORNTA1001BT1 ORNTA1001DT1 ORNTA1002BT1 ORNTA1002DT1 ORNTA2002BT1 ORNTA2002DT1 ORNTA5000BT1 ORNTA5002FT1 ORNTA1001AT1 ORNTA1002AT1 ORNTA1003AT1 ORNTA2001AT1 ORNTA2002AT1 ORNTA4991AT1 ORNTA5000AT1 ORNTA5001AT1 ORNTA5002AT1 ORNTA1002QTS ORNTA2001QTS ORNTA1003ZT5 ORNTA1002ATF ORNTA2001BT1 ORNTA2002BT5 ORNA2001AT1 ORNA2002AT1 ORNTA1003ZTF ORNTA1002ZT0 ORNA2002FUF ORNA1002AT5 ORNA1002AUF ORNA2001BUF ORNA5002AUF ORNTA5001AUF ORNTA1001AUF ORNTA5002AUF ORNA5001AUF ORNTA1003FT1 ORNTA1002ZT5 ORNTA5001DT5 ORNA1003AT5 ORNA2001ZT5 ORNA1002QUF ORNA2002ZTS ORNA2002AUF ORNA1001AT0 ORNA1001AT5 ORNA1001BT1 ORNA1001ZT0 ORNA1001ZT5 ORNA1001ZTS ORNA1001ZUF ORNA1002AT0 ORNA1002BTS ORNA1002FTS ORNA1002QT5 ORNA1002QTF ORNA1002QTS ORNA1002ZT0 ORNA1002ZT1 ORNA1002ZTF ORNA1002ZTS ORNA1002ZUF ORNA1003AT0 ORNA1003ATS ORNA1003DTS