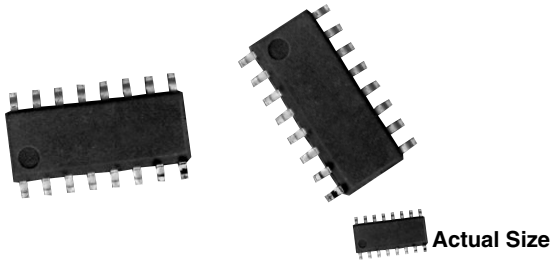
Molded, 50 mil Pitch, Dual-In-Line Thin Film Resistor, Narrow Body, Surface Mount Network



Actual Size

LINKS TO ADDITIONAL RESOURCES

Product Page | Packages | Footprints | Order Samples

The NOMC series features a standard 14 pins and 16 pins narrow body (0.150") small outline surface mount style. It can accommodate resistor networks to your particular application requirements. The networks can be constructed with passivated nichrome (standard), or tantalum nitride (1) resistor films to optimize performance.

Note

(1) Available upon request. Resistance value range and performance differs from passivated nichrome standard electrical specifications on datasheet, consult factory

ATTENTION!
Observe Precautions for
Handling Electrostatic Sensitive Devices!

FEATURES

- Standard 14 pins and 16 pins counts (0.150" narrow body) JEDEC® MS-012 variation AB and AC
- Rugged molded case construction
- Excellent long term ratio stability (ΔR ± 0.015 %)
- Low TCR tracking ± 5 ppm/°C
- Isolated and bussed schematics
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

Pb-free Available

RoHS* Available

HALOGEN FREE

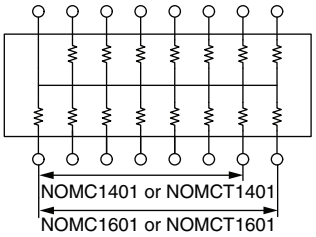
Note

* This datasheet provides information about parts that are RoHS-compliant and / or parts that are non RoHS-compliant. For example, parts with lead (Pb) terminations are not RoHS-compliant. Please see the information / tables in this datasheet for details

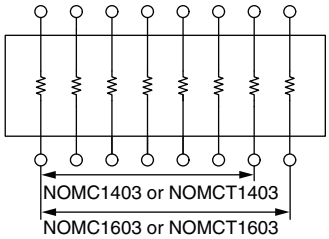
TYPICAL PERFORMANCE

	ABSOLUTE	TRACKING
TCR	25	5
	ABSOLUTE	RATIO
TOL.	0.10	0.05

SCHEMATICS



The 01 circuit provides a choice of 13 or 15 equal value resistors each connected between a common lead (14 or 16). Custom schematics available.



The 03 circuit provides a choice of 7 or 8 equal value resistors (14 or 16). Custom schematics available.

STANDARD RESISTANCE OFFERING (Equal Value Resistors)	
ISOLATED (03) SCHEMATIC	**BUSSED (01) SCHEMATIC**
1 kΩ	1 kΩ
2 kΩ	5 kΩ
5 kΩ	10 kΩ
10 kΩ	20 kΩ
20 kΩ	
25 kΩ	
50 kΩ	
100 kΩ	

Note

- Consult factory for additional values

For technical questions, contact: thinfilm@vishay.com

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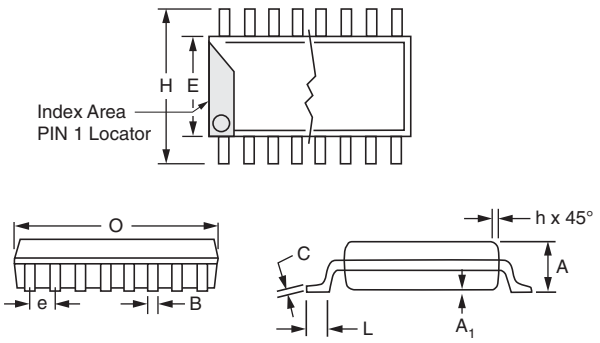
STANDARD ELECTRICAL SPECIFICATIONS

TEST	SPECIFICATIONS	CONDITIONS
Material	Passivated nichrome (standard) Tantalum nitride (available upon request)	-
Pin / lead number	14, 16	-
Resistance range	100 Ω to 50 kΩ each resistor (bussed (01) schematic) 100 Ω to 100 kΩ each resistor (isolated (03) schematic)	- -
TCR: absolute	± 25 ppm/°C (standard)	- 55 °C to + 125 °C
TCR: tracking	± 5 ppm/°C (typical)	- 55 °C to + 125 °C
Tolerance: absolute	± 0.10 % to ± 1 %	+ 25 °C
Tolerance: ratio	± 0.025 % to ± 0.1 %	+ 25 °C
Power rating: resistor	100 mW ((typical) (03) schematic) 50 mW ((01) schematic)	Maximum at + 70 °C
Power rating: package	400 mW/500 mW	Maximum at + 70 °C
Stability: absolute	ΔR ± 0.05 %	2000 h at + 70 °C
Stability: ratio	ΔR ± 0.015 %	2000 h at + 70 °C
Voltage coefficient	< 0.1 ppm/V	-
Working voltage	100 V max. not to exceed $\sqrt{P \times R}$	-
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	ΔR ± 0.01 %	1 year at + 25 °C
Shelf life stability: ratio	ΔR ± 0.002 %	1 year at + 25 °C

DIMENSIONS AND IMPRINTING in inches and millimeters



DIMENSION	14		16	
	INCHES	MILLIMETERS	INCHES	MILLIMETERS
H	0.235	5.969	0.235	5.969
E	0.154	3.911	0.154	3.91
O	0.340	8.363	0.390	9.906
A	0.063	1.60	0.063	1.60
e	0.050	1.270	0.050	1.270
B	0.015	0.381	0.015	0.381
C	0.008	0.203	0.008	0.203
L	0.025	0.635	0.025	0.635
A1	0.006	0.152	0.006	0.152
h	0.015	0.381	0.015	0.381

MECHANICAL SPECIFICATIONS

Resistive element	Passivated nichrome
Substrate material	Silicon
Body	Molded epoxy
Terminals	Copper alloy
Lead (Pb)-free option	100 % matte tin
Lead (Pb)-free finish	Plated

Note

- Available upon request. Resistance value range and performance differs from passivated nichrome standard electrical specifications on datasheet, consult factory

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ORDERING INFORMATION CHECK LIST (Customs)

Special requirements should be identified in advance, but as a minimum, you should have the following information ready.

ELECTRICAL	MECHANICAL
1. Resistors, by value and tolerance 2. Reference resistor(s) and matching of which resistors to which reference resistors 3. Reference by ratio 4. Absolute temperature coefficient of resistivity 5. Temperature tracking of subordinate resistors to reference resistor(s) 6. Maximum operating voltage 7. Resistor power ratings 8. Operating temperature range	1. Maximum allowable seated height (from PC board to top of network) 2. Special marking concerns 3. Schematic pin out of package

GLOBAL PART NUMBER INFORMATION

New Global Part Numbering: NOMCT16031002BUF

N	O	M	C	T	1	4	0	3	1	0	0	3	Z	T	1

GLOBAL MODEL (4 or 5 digits)	PINS	SCHEMATIC	RESISTANCE	TOLERANCE AND RATIO TOLERANCE	PACKAGING
NOMCT (lead (Pb)-free) (e3) *Obsolete:* *NOMC (tin lead)*	**14** **16**	**01** = 13 or 15 bussed equal value resistors **03** = 7 or 8 isolated equal value resistors	First 3 digits are significant figures and the last digit specifies the number of zeros to follow. Example: 1002 = 10K 1003 = 100K	Abs. tol. / Ratio **A** = 0.1 % (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 % (1) / 0.025 %	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 2500 **TS** = 100 min., 1 mult. **UF** = TUBED

Historical Part Number Example: NOMCT16031002Z (for reference purposes only)

NOMCT	16	03	1002	Z
SERIES	PINS	SCHEMATIC	RESISTANCE	TOLERANCE AND RATIO TOLERANCE

Notes

(1) Tolerance available 1K and up

(2) Preferred packaging code

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