### Vishay Thin Film



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







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 <sup>(1)</sup> 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.

### **FEATURES**

 Standard 14 pins and 16 pins counts (0.150" narrow body) JEDEC MS-012 variation AB and AC



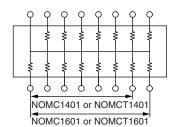
RoHS

- · Rugged molded case construction
- Excellent long term ratio stability (ΔR ± 0.015 %)
- Low TCR tracking ± 5 ppm/°C
- Compliant to RoHS directive 2002/95/EC

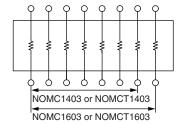
### **TYPICAL PERFORMANCE**

	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 each connected between a common lead (14 or 16). Custom schematics available.

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

#### Note

· Consult factory for additional values

<sup>\*</sup> Pb containing terminations are not RoHS compliant, exemptions may apply



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16

**MILLIMETERS** 

5.969

3.91

9.906

1.60

1.270

0.381

0.203

0.635

0.152

0.381

**INCHES** 

0.235

0.154

0.390

0.063

0.050

0.015

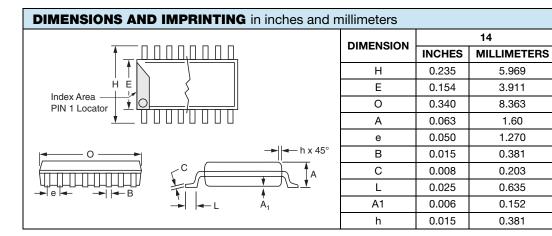
0.008

0.025

0.006

0.015

STANDARD ELECTRICAL SPECIFICATIONS				
TEST	SPECIFICATIONS	CONDITIONS		
Material	Passivated nichrome (standard) Tantalum nitride (available upon request)	-		
Pin/Lead Number	14, 16	-		
Basistanaa Banna	100 $\Omega$ to 50 k $\Omega$ each resistor (bussed (01) schematic)	-		
Resistance Range	100 $\Omega$ to 100 k $\Omega$ 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)	Maximum at + 70 °C		
	50 mW ((01) schematic)	Maximum at + 70 O		
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 √P x R -			
Operating Temperature Range	Range - 55 °C to + 125 °C -			
Storage Temperature Range	ure 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		



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	

#### Note

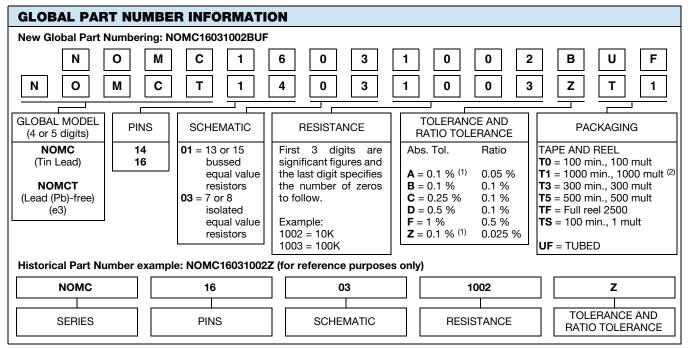
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ORDERING INFORMATION CHECK LIST (Customs)				
Special requirements should be identified in advance, but as a minimum, you should have the following information ready.				
ELECTRICAL	MECHANICAL			
<ol> <li>Resistors, by value and tolerance</li> <li>Reference resistor(s) and matching of which resistors to which reference resistors</li> <li>Reference by ratio</li> <li>Absolute temperature coefficient of resistivity</li> <li>Temperature tracking of subordinate resistors to reference resistor(s)</li> <li>Maximum operating voltage</li> <li>Resistor power ratings</li> <li>Operating temperature range</li> </ol>	Maximum allowable seated height (from PC board to top of network)     Special marking concerns     Schematic pin out of package			



### **Notes**

- (1) Tolerance available 1K and up
- (2) Preferred packaging code

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