



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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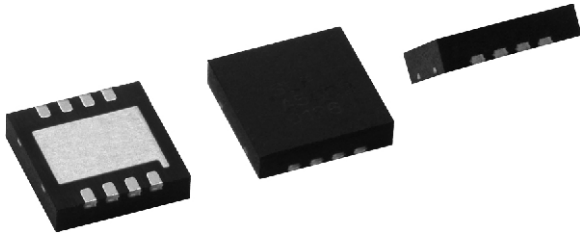
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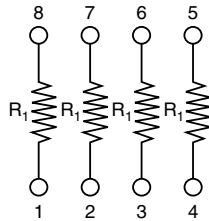


Dual Flat No Lead Molded Precision Thin Film Resistor Surface Mount Network



The DFN series of precision surface mount resistor networks feature isolated thin film precision resistors mounted in a 0.8 mm pitch 4 mm x 4 mm dual flat no lead package. The networks feature 50 % savings in board space over traditional SOIC packages. They are ideally suited for applications of unity gain operational amplifiers that require close TC tracking and tight ratio tolerances over temperature. Custom configurations are available upon request.

SCHEMATIC



FEATURES

- 0.8 mm lead pitch
- MSL level 1 per J-STD-020
- Low profile 1 mm seated height
- Small size 4 mm x 4 mm size 50 % board savings over SOIC packages
- Wide resistance range 100 Ω to 100 k Ω available
- Custom configurations available
- Low TCR ± 25 ppm, TCR tracking to ± 3 ppm
- Ratio tolerances to ± 0.025 %
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912


**RoHS
COMPLIANT**

TYPICAL PERFORMANCE

| | ABSOLUTE | TRACKING |
|------|----------|----------|
| TCR | 25 | 3 |
| | ABSOLUTE | RATIO |
| TOL. | 0.1 | 0.05 |

STANDARD RESISTANCE OFFERING ($R_1 =$)

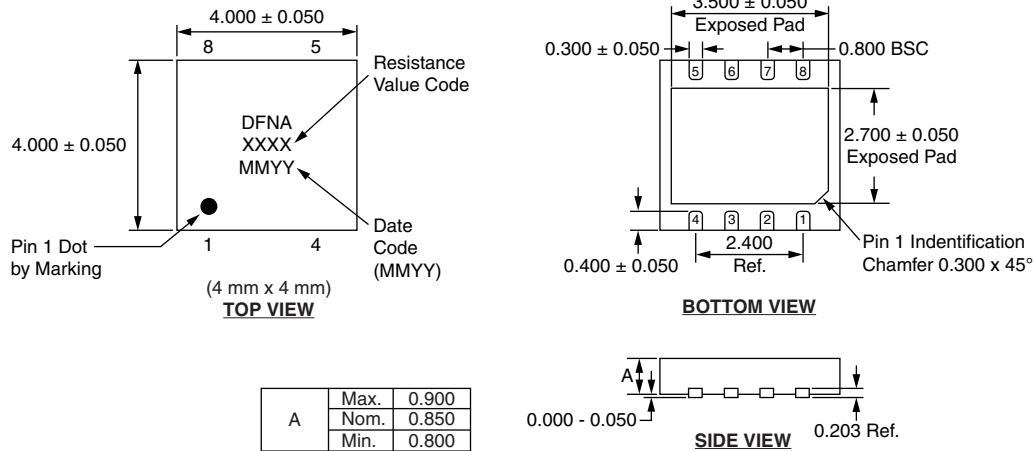
| | |
|-----------------|----------------|
| 500 Ω | 10 k Ω |
| 1 k Ω | 20 k Ω |
| 2 k Ω | 50 k Ω |
| 4.99 k Ω | 100 k Ω |
| 5 k Ω | |

Note

- Consult factory for additional R values and schematics

STANDARD ELECTRICAL SPECIFICATIONS

| TEST | SPECIFICATIONS | CONDITIONS |
|--------------------------------|--|---------------------------------------|
| Material | Passivated nichrome | - |
| Pin/Lead Number | 8 | - |
| Resistance Range | 100 Ω to 100 k Ω per resistor | - |
| TCR: Absolute | ± 25 ppm/ $^{\circ}$ C | -55 $^{\circ}$ C to +125 $^{\circ}$ C |
| TCR: Tracking | ± 3 ppm/ $^{\circ}$ C | -55 $^{\circ}$ C to +125 $^{\circ}$ C |
| Tolerance: Absolute | ± 0.05 % to ± 1.0 % | +25 $^{\circ}$ C |
| Tolerance: Ratio | ± 0.025 % to ± 0.5 % | +25 $^{\circ}$ C |
| Power Rating: Resistor | 100 mW | Maximum at +70 $^{\circ}$ C |
| Power Rating: Package | 100 mW x number of resistors | Maximum at +70 $^{\circ}$ C |
| Stability: Absolute | $\Delta R \pm 0.05$ % | 2000 h at +70 $^{\circ}$ C |
| Stability: Ratio | $\Delta R \pm 0.015$ % | 2000 h at +70 $^{\circ}$ C |
| Voltage Coefficient | < 0.1 ppm/V | - |
| Working Voltage | 100 V max. not to exceed $\sqrt{P \times R}$ | - |
| 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 | $\Delta R \pm 0.01$ % | 1 year at +25 $^{\circ}$ C |
| Shelf Life Stability: Ratio | $\Delta R \pm 0.002$ % | 1 year at +25 $^{\circ}$ C |

DIMENSIONS AND IMPRINTING in millimeters

Note

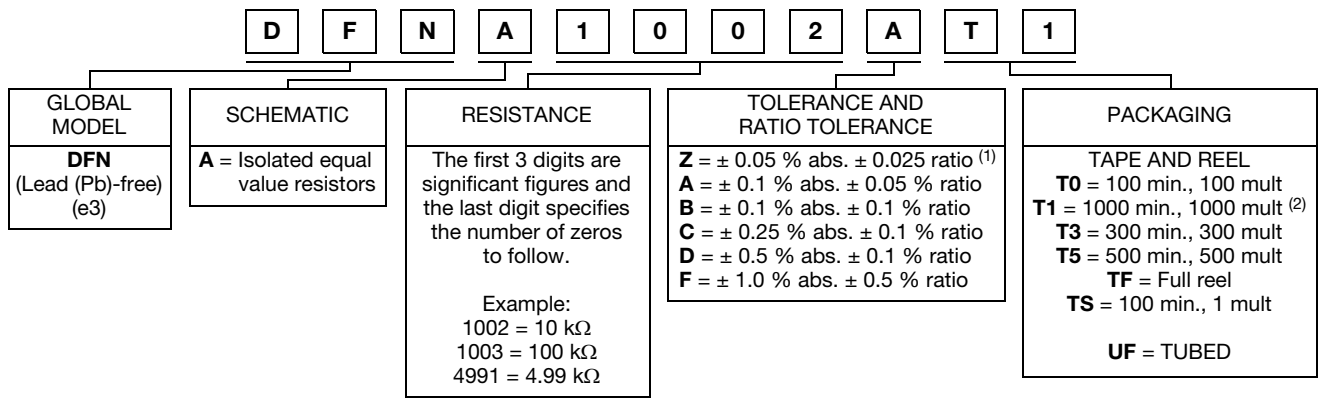
- Contact factory for package outlines for higher pin count or custom configurations

MECHANICAL SPECIFICATIONS

| | |
|--------------------------------|---------------------|
| Resistive Element | Passivated nichrome |
| Substrate Material | Ceramic |
| Body | Molded epoxy |
| Terminals | Copper alloy |
| Plating | 100 % matte tin |
| Marking Resistance to Solvents | Per MIL-PRF-914 |

GLOBAL PART NUMBER INFORMATION

New Global Part Numbering: DFNA1002AT1


Notes

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



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