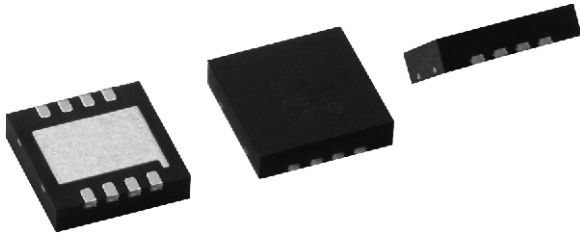
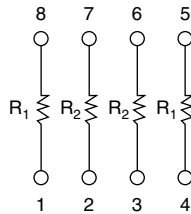


Dual Flat No Lead Molded Precision Thin Film Divider, Surface Mount Resistor Network



The DFN series of thin film precision dividers surface mount resistor networks offer a wide ratio range that is listed in the standard resistance offering table. The 4 mm x 4 mm 0.8 mm pitch dual flat no lead package feature 50 % savings in board space over traditional SOIC packages. The DFN dividers are ideal for applications that require tight TC tracking and ratio tolerances over temperature.

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
- Low TCR ± 25 ppm, TCR tracking to ± 5 ppm
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912


**RoHS
COMPLIANT**

TYPICAL PERFORMANCE

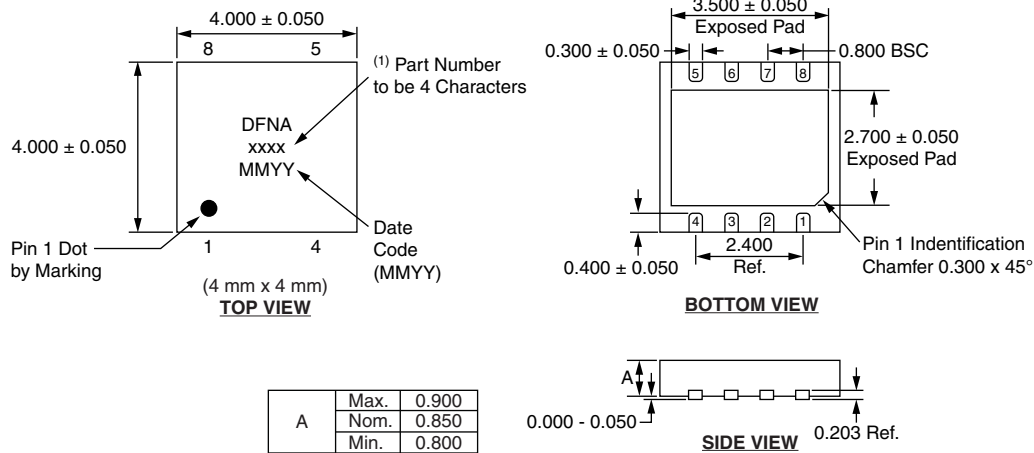
| | ABSOLUTE | TRACKING |
|------|----------|----------|
| TCR | 25 | 5 |
| | ABSOLUTE | RATIO |
| TOL. | 0.1 | 0.05 |

STANDARD RESISTANCE OFFERING (R_1/R_2)

| RATIO | R_1 | R_2 |
|-------|-------|-------|
| 100:1 | 100K | 1K |
| 50:1 | 50K | 1K |
| 25:1 | 25K | 1K |
| 20:1 | 20K | 1K |
| 10:1 | 10K | 1K |
| 5:1 | 10K | 2K |
| 2:1 | 10K | 5K |

STANDARD ELECTRICAL SPECIFICATIONS

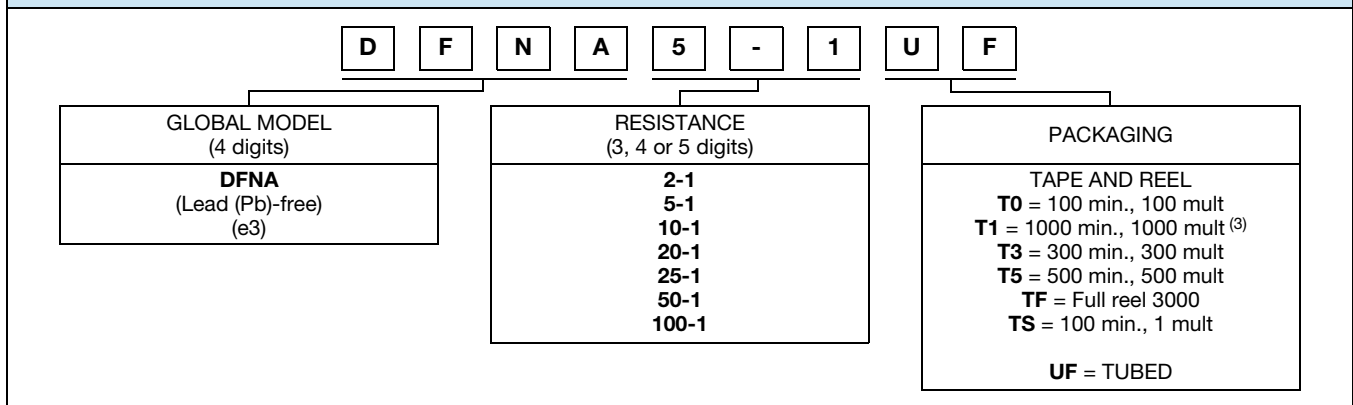
| TEST | SPECIFICATIONS | CONDITIONS |
|--------------------------------|--|---------------------------------------|
| Material | Passivated nichrome | - |
| Pin/Lead Number | 8 | - |
| Resistance Range | 1000 Ω to 100 k Ω per element | - |
| TCR: Absolute | ± 25 ppm/ $^{\circ}$ C | -55 $^{\circ}$ C to +125 $^{\circ}$ C |
| TCR: Tracking | ± 5 ppm/ $^{\circ}$ C | -55 $^{\circ}$ C to +125 $^{\circ}$ C |
| Tolerance: Absolute | ± 0.1 % | +25 $^{\circ}$ C |
| Tolerance: Ratio | ± 0.05 % | +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

Notes

- (1) 100-1 resistance ratio part marking to be 100-
 (2) 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

Note

- (3) Preferred packaging code



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