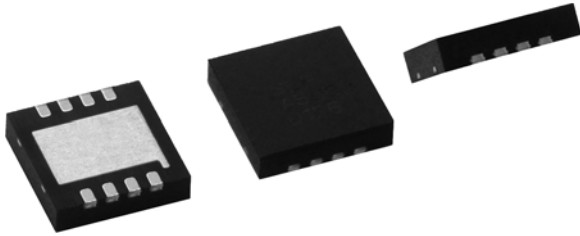
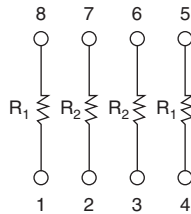


## Dual Flat No Lead Molded Precision Thin Film Divider, Surface Mount Resistor Network



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  $\pm 25$  ppm, TCR tracking to  $\pm 5$  ppm
- Compliant to RoHS Directive 2002/95/EC



RoHS  
COMPLIANT

### TYPICAL PERFORMANCE

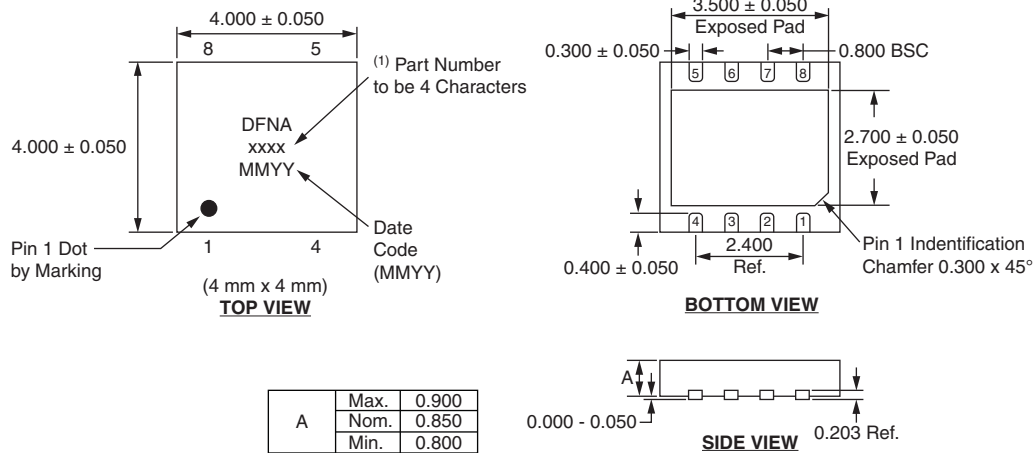
|      | ABSOLUTE | TRACKING |
|------|----------|----------|
| TCR  | 25       | 5        |
|      | ABSOLUTE | RATIO    |
| TOL. | 0.1      | 0.05     |

### 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

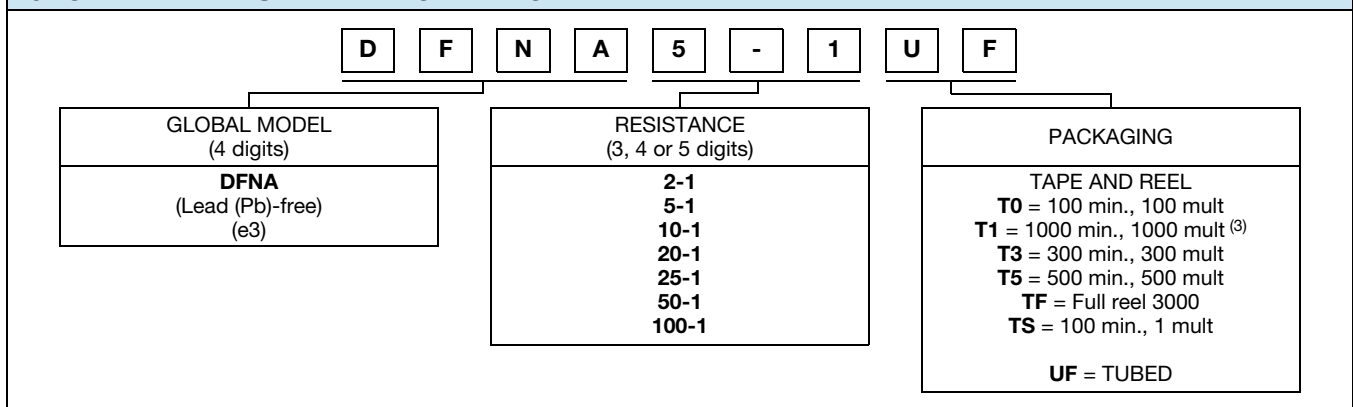
| TEST                           | SPECIFICATIONS                               | CONDITIONS                              |
|--------------------------------|--|---|
| Material                       | Passivated nichrome                          | -                                       |
| Pin/Lead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