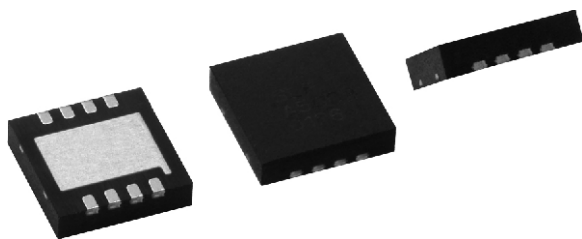
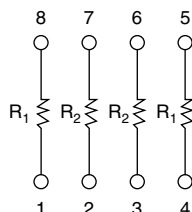


## Dual Flat No Lead Molded Precision Thin Film Divider, Surface Mount Resistor Network



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
- Material categorization: for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)


**RoHS  
COMPLIANT**

### TYPICAL PERFORMANCE

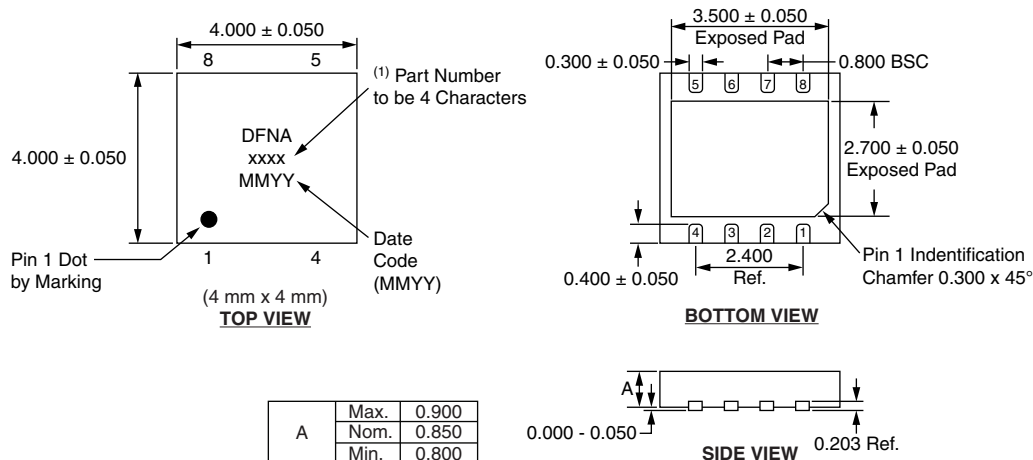
	ABSOLUTE	TRACKING
TCR	25	5
	ABSOLUTE	RATIO
TOL.	0.1	0.05

### 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 $\Omega$ to 100 k $\Omega$ per element	-
TCR: Absolute	$\pm 25$ ppm/ $^{\circ}\text{C}$	-55 $^{\circ}\text{C}$ to +125 $^{\circ}\text{C}$
TCR: Tracking	$\pm 5$ ppm/ $^{\circ}\text{C}$	-55 $^{\circ}\text{C}$ to +125 $^{\circ}\text{C}$
Tolerance: Absolute	$\pm 0.1$ %	+25 $^{\circ}\text{C}$
Tolerance: Ratio	$\pm 0.05$ %	+25 $^{\circ}\text{C}$
Power Rating: Resistor	100 mW	Maximum at +70 $^{\circ}\text{C}$
Power Rating: Package	100 mW x number of resistors	Maximum at +70 $^{\circ}\text{C}$
Stability: Absolute	$\Delta R \pm 0.05$ %	2000 h at +70 $^{\circ}\text{C}$
Stability: Ratio	$\Delta R \pm 0.015$ %	2000 h at +70 $^{\circ}\text{C}$
Voltage Coefficient	< 0.1 ppm/V	-
Working Voltage	100 V max. not to exceed $\sqrt{P \times R}$	-
Operating Temperature Range	-55 $^{\circ}\text{C}$ to +125 $^{\circ}\text{C}$	-
Storage Temperature Range	-55 $^{\circ}\text{C}$ to +150 $^{\circ}\text{C}$	-
Noise	< - 30 dB	-
Thermal EMF	< 0.08 $\mu\text{V}/^{\circ}\text{C}$	-
Shelf Life Stability: Absolute	$\Delta R \pm 0.01$ %	1 year at + 25 $^{\circ}\text{C}$
Shelf Life Stability: Ratio	$\Delta R \pm 0.002$ %	1 year at + 25 $^{\circ}\text{C}$

**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**

D	F	N	A	5	-	1	U	F
GLOBAL MODEL (4 digits)				RESISTANCE (3, 4 or 5 digits)			PACKAGING	
DFNA (Lead (Pb)-free) (e3)				2-1 5-1 10-1 20-1 25-1 50-1 100-1			TAPE AND REEL T0 = 100 min., 100 mult T1 = 1000 min., 1000 mult <sup>(3)</sup> T3 = 300 min., 300 mult T5 = 500 min., 500 mult TF = Full reel 3000 TS = 100 min., 1 mult  UF = TUBED	

**Note**

- <sup>(3)</sup> Preferred packaging code



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