

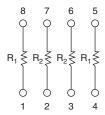
Vishay Dale Thin Film

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



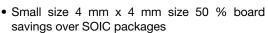
The DFN series of thin film precision dividers surface mount resistor networks offer a wide ratio range that is listed in the standard resistance offering table. The 4 mm x 4 mm 0.8 mm pitch dual flat no lead package feature 50 % savings in board space over traditional SOIC packages. The DFN dividers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



- Low TCR ± 25 ppm, TCR tracking to ± 5 ppm
- Compliant to RoHS Directive 2002/95/EC

### **TYPICAL PERFORMANCE**

	ABSOLUTE	TRACKING	
TCR	25	5	
	ABSOLUTE	RATIO	
TOL.	0.1	0.05	

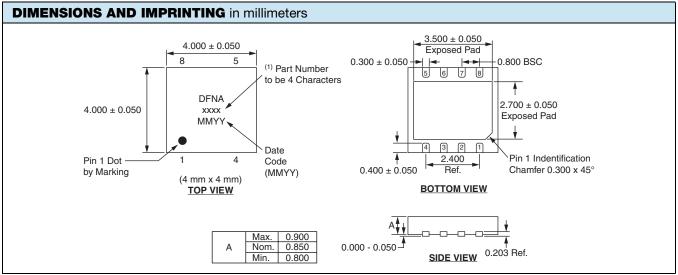
STANDARD RESISTANCE OFFERING (R <sub>1</sub> /R <sub>2</sub> )			
RATIO	R <sub>1</sub>	R <sub>2</sub>	
100:1	100K	1K	
50:1	50K	1K	
25:1	25K	1K	
20:1	20K	1K	
10:1	10K	1K	
5:1	10K	2K	
2:1	10K	5K	

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	± 25 ppm/°C	- 55 °C to + 125 °C
TCR: Tracking	± 5 ppm/°C	- 55 °C to + 125 °C
Tolerance: Absolute	± 0.1 %	+ 25 °C
Tolerance: Ratio	± 0.05 %	+ 25 °C
Power Rating: Resistor	100 mW	Maximum at + 70 °C
Power Rating: Package	100 mW x number of resistors	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	- 55 °C to + 125 °C	-
Storage Temperature 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

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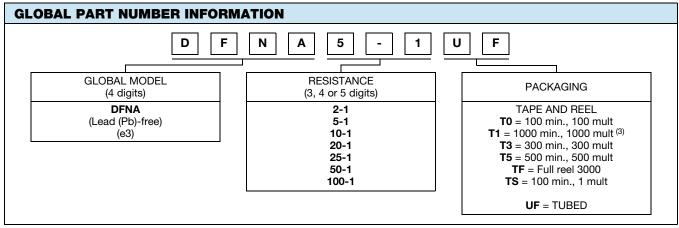
### Vishay Dale Thin Film



#### 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	



#### Note

(3) Preferred packaging code



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Vishay

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