Vishay Dale Thin Film





Vishay Dale Thin Film offers standard circuits in 16 pins in a medium body molded surface mount package. The networks are available over a resistance range of 100 Ω to 100 k Ω . The network features tight ratio tolerances and close TCR tracking. In addition to the standards shown, custom circuits are available upon request.

SCHEMATIC



The 01 circuit provides 15 nominally equal resistors, each connected between a common lead (16) and a discrete PC board pin.

FEATURES

- 0.090" (2.29 mm) maximum seated height
- Rugged, molded case construction (0.22" wide)
- Highly stable thin film ratio stability $(\Delta R \pm 0.015 \% \text{ at } 70 \degree \text{C} \text{ for } 2000 \text{ h})$
- Low temperature coefficient, ± 25 ppm/°C (-55 °C to +125 °C)
- Wide resistance range 100 Ω to 100 k Ω
- Isolated / bussed circuits
- Material categorization: for definitions of compliance please see <u>www.vishay.com/doc?99912</u>

Note

* This datasheet provides information about parts that are RoHS-compliant and / or parts that are non RoHS-compliant. For example, parts with lead (Pb) terminations are not RoHS-compliant. Please see the information / tables in this datasheet for details

TYPICAL PERFORMANCE

lacksquare	ABSOLUTE	TRACKING
TCR	25	5
	ABSOLUTE	RATIO
TOL.	0.1	0.025



The 03 circuit provides a choice of 8 nominally equal resistors with each resistor isolated from all others and wired directly across.

STANDARD ELECTRICAL SPECIFICATIONS		
TEST	SPECIFICATIONS	CONDITIONS
Material	Passivated nichrome	-
Pin/Lead Number	16	-
Resistance Range	100 Ω to 100 k Ω per resistor	-
TCR: Absolute	± 25 ppm/°C	-55 °C to +125 °C
TCR: Tracking	± 5 ppm/°C	-55 °C to +125 °C
Tolerance: Absolute	± 0.1 % to ± 1 %	+25 °C
Tolerance: Ratio	± 0.025 % to ± 0.5 %	+25 °C
Power Rating: Resistor	50 mW = PIN 16 common 100 mW = isolated	Maximum at +70 °C
Power Rating: Package	750 mW	Maximum at +70 °C
Stability: Absolute	$\Delta R \pm 0.05 \%$	2000 h at +70 °C
Stability: Ratio	∆ <i>R</i> ± 0.015 %	2000 h at +70 °C
Voltage Coefficient	0.1 ppm/V	-
Working Voltage	100 V max. not to exceed $\sqrt{P \times R}$	-
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	$\Delta R \pm 0.01 \%$	1 year at +25 °C
Shelf Life Stability: Ratio	$\Delta R \pm 0.002 \%$	1 year at +25 °C

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Available RoHS* Available HALOGEN

Www.vishay.com



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Note

The tolerance and package code is NOT a member of the part marking.
For space considerations the part number may be broken up, i. e.:

TOMC1603

1002

O YYWW

MECHANICAL SPECIFICATIONS		
Resistive Element	Passivated nichrome	
Substrate Material	High purity alumina	
Body	Molded epoxy	
Terminals	Copper alloy	
Lead (Pb)-free Option	100 % matte tin	
Tin Lead Option	Sn85	
Tin Lead and Lead (Pb)-free Finish	Plated	



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For technical questions, contact: <u>thinfilm@vishay.com</u> THIS DOCUMENT IS SUBJECT TO CHANGE WITHOUT NOTICE. THE PRODUCTS DESCRIBED HEREIN AND THIS DOCUMENT ARE SUBJECT TO SPECIFIC DISCLAIMERS, SET FORTH AT <u>www.vishay.com/doc?91000</u>

томс



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Notes

⁽¹⁾ Tolerance available 250 and up

⁽²⁾ Tolerance available 1K and up

⁽³⁾ Preferred packaging code



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