Vishay Dale Thin Film



Molded, SOT-23 Thin Film Surface Mount Resistor/Capacitor Network



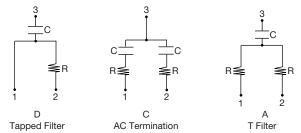
Vishay's R/C Network, packaged in the standard SOT-23, can be strategically placed on your PC board to do localized filtering. The R/C Network can be located at the point of emission before transients are carried through the design.

The sophisticated process of integrating the Resistor and Capacitor on a single substrate provides you with higher performance and more consistent results over discrete components. A real estate savings will also be gained.

Applications include EMI/RFI suppression and AC termination. These networks, in the SOT-23, along with Vishay's high component count R Networks and R/C Networks in a variety of standard IC packages, provides you with the exact solution for your redesign or new design.

Visit our website for the total picture on available R Networks and R/C Networks from our guaranteed stock program.

#### SCHEMATIC



## **FEATURES**

- · Resistor and capacitor integrated into a Thin Film network
- Filters at the source of emissions
- More consistent performance characteristics than discretes



RoHS

COMPLIANT

HALOGEN FREE

- Compliant to RoHS Directive 2002/95/EC
- Halogen-free according to IEC 61249-2-21 definition

## **TYPICAL PERFORMANCE**

	TCR	TOLERANCE
RESISTOR	200	10
	тсс	TOLERANCE
CAPACITOR	200	20

VR TOOLED VALUES <sup>(1)</sup>			
R (Ω)	C (pF)		
33	47		
47	47		
100	80		
	<b>R (Ω)</b> 33 47		

Note

· Consult application engineering for custom values

STANDARD ELECTRICAL SPECIFICATIONS			
TEST	SPECIFICATIONS	CONDITIONS	
Material	Tantalum nitride	-	
Pin/Lead Number	3	-	
Resistance Range	10 $\Omega$ to 500 $\Omega$	-	
TCR: Absolute	± 200 ppm/°C	0 °C to + 70 °C	
TCR: Tracking	-	-	
Tolerance: Absolute	$\pm$ 10 % standard (R), $\pm$ 20 % standard (C)	At 1 MHz and V <sub>RMS</sub> over + 10 °C to + 70 °C	
Power Rating: Resistor	100 mW	-	
Power Rating: Package	1 W	at + 70 °C	
Stability: Ratio	-	-	
Operating Temperature Range	0 °C to + 70 °C	-	
Storage Temperature Range	- 55 °C to + 125 °C	-	
Capacitance Range	10 pF to 80 pF	-	
ESD Protection	-	-	
Breakdown Voltage	25 V to 45 V	-	

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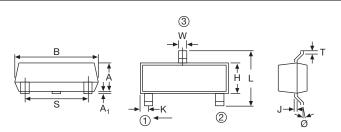
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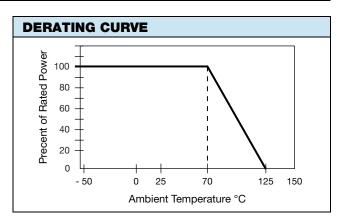
### **DIMENSIONS** in inches and millimeters



	JEDEC STANDARD TO-236			
DIMENSION	INCI	HES	MILLIN	ILLIMETERS
	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM
А	0.027	0.040	0.70	1.02
A <sub>1</sub>	0.001	0.004	0.02	0.15
В	0.105	0.120	2.67	3.04
S	0.071	0.079	1.80	2.00
W	0.015	0.021	0.38	0.54
L	0.083	1.03	2.10	2.64
Н	0.047	0.055	1.20	1.40
Т	0.050	0.157	0.13	0.40
J	0.003	0.008	0.089	0.15
К	0.017	0.022	0.44	0.55
Ø	0	8°	0	8°

IMPRINTING		
	SCHEMATIC	
VRA	AA	
VRC	AC	
VRD	AD	

MECHANICAL SPECIFICATIONS		
<b>Resistive Element</b>	Tantalum nitride	
Capacitive Material	Thin film	
Substrate Material	Silicon	
Body	Molded epoxy	
Terminals	Copper alloy	
Plating	100 % matte Sn	
Lead Coplanarity	0.0005"	
Marking Resistance to Solvents	Permanency testing per MIL-STD-202, method 215	



PACKAGING INFORMATION			
MODEL	LEADS	TAPE AND REEL	
VR	3	3000	

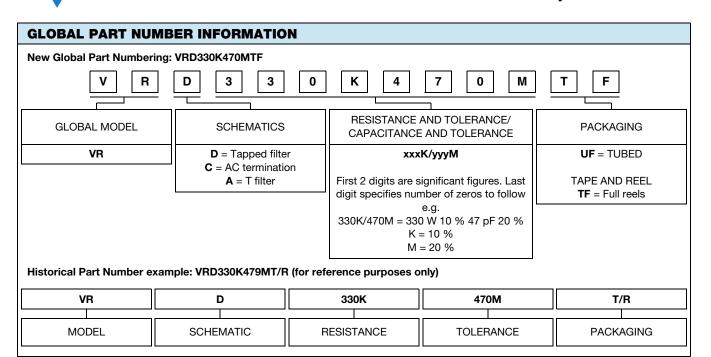
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VR

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