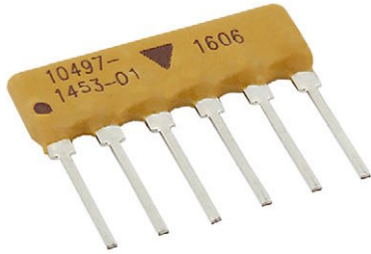
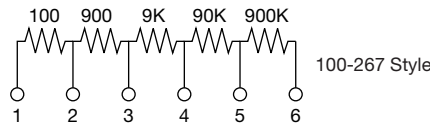


Decade Divider, Single In-Line, Thin Film Divider, Through Hole Resistor Network



Precision resistor networks comprised of series-connected decade values are provided in single-in-line style with edge-mounted leads on 100 mil centers. Integrated thin film construction, laser-trimmed to extremely tight tolerances, insures exceptionally close tracking over temperature and throughout operating life, in either voltage division or current monitoring mode. Voltage coefficient and noise are extremely low. Designers gain several advantages over the use of discrete resistor sets, including smaller size, better overall tracking, greater reliability, and lower cost.

SCHEMATIC



FEATURES

- Tight ratio tolerance (0.01 %)
- 5 decade ratio divider
- High voltage capability (300 V)
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912



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

	ABSOLUTE	TRACKING
TCR	25	5
	ABSOLUTE	RATIO
TOL.	0.1	0.01

STANDARD ELECTRICAL SPECIFICATIONS

TEST	SPECIFICATIONS	CONDITIONS
Material	Passivated nichrome	-
Pin/Lead Number	6	-
Resistance Range	100 Ω to 1 M Ω total	-
TCR: Absolute	± 25 ppm/ $^{\circ}$ C	0 $^{\circ}$ C to +70 $^{\circ}$ C
TCR: Tracking	± 5 ppm/ $^{\circ}$ C	0 $^{\circ}$ C to +70 $^{\circ}$ C
Tolerance: Absolute	± 0.1 %	+25 $^{\circ}$ C
Tolerance: Ratio	± 0.01 % to ± 0.1 %	+25 $^{\circ}$ C
Power Rating: Resistor	0.100 W	Maximum at +70 $^{\circ}$ C
Power Rating: Package	0.500 W	Maximum at +70 $^{\circ}$ C
Stability: Absolute	1000 ppm	2000 h at +70 $^{\circ}$ C
Stability: Ratio	200 ppm	2000 h at +70 $^{\circ}$ C
Voltage Coefficient	0.1 ppm/V	-
Working Voltage	300 V	-
Operating Temperature Range	0 $^{\circ}$ C to +70 $^{\circ}$ C	-
Storage Temperature Range	-55 $^{\circ}$ C to +125 $^{\circ}$ C	-
Noise	- 20 dB	-
Thermal EMF	0.08 μ 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 inches and millimeters			
	DIMENSION	INCHES	MILLIMETERS
	A	0.100 max.	2.54
	B	0.620 max.	15.78
	C	0.350 max.	8.89
	D	0.125 min.	3.18
	E	0.010 typ.	0.25
	F	0.020 typ.	0.51
	G	0.1 (5 x) typ.	2.54

PART NUMBER 100-	267-T	267-Q	267-A	267-B
Ratio Tolerance ⁽¹⁾	0.01 %	0.025 %	0.05 %	0.1 %
Voltage Rating	300 V			
Noise Index	< -30 dB			

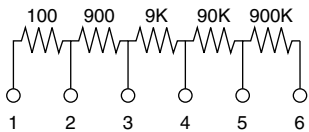
Note
⁽¹⁾ Excluding the 100 Ω

$$\frac{R1 + R2 + R3 + R4}{RT} = \frac{100 \text{ k}\Omega}{1 \text{ M}\Omega} = 0.1$$

$$\frac{R1 + R2 + R3}{RT} = \frac{10 \text{ k}\Omega}{1 \text{ M}\Omega} = 0.01$$

$$\frac{R1 + R2}{RT} = \frac{1 \text{ k}\Omega}{1 \text{ M}\Omega} = 0.001$$

$$R1 = 100 \Omega \pm 0.1 \%$$



MECHANICAL SPECIFICATIONS	
Resistive Element	Passivated nichrome
Substrate Material	Alumina
Body	Conformal coated
Terminals	Copper alloy
Marking Resistance to Solvents	Per MIL-PRF-83401
Tin/Lead Option	Sn60 - Sn63
Lead (Pb)-free Option	Sn96.5, Ag3.0, Cu0.5
Tin/Lead and Lead (Pb)-free Finish	Hot solder dip

GLOBAL PART NUMBER INFORMATION		
New Global Part Numbering: VTF100-267TUF		
V T F 1 0 0 - 2 6 7 T U F V T F 1 0 0 S - 2 6 7 T U F		
SERIES MODEL (10 or 11 digits) VTF100-267 (Tin lead) VTF100S-267 (Lead (Pb)-free) (e1)	TOLERANCE (1 digit) T = 0.01 % ratio Q = 0.025 % ratio A = 0.05 % ratio B = 0.1 % ratio	PACKAGING (2 digits) UF = tubed
Historical Part Number Example: 100-267Q (for reference purposes only)		
100 SERIES	267 MODEL	Q TOLERANCE



Disclaimer

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Vishay"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product.

Vishay makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, Vishay disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on Vishay's knowledge of typical requirements that are often placed on Vishay products in generic applications. Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and / or specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts. Product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein.

Hyperlinks included in this datasheet may direct users to third-party websites. These links are provided as a convenience and for informational purposes only. Inclusion of these hyperlinks does not constitute an endorsement or an approval by Vishay of any of the products, services or opinions of the corporation, organization or individual associated with the third-party website. Vishay disclaims any and all liability and bears no responsibility for the accuracy, legality or content of the third-party website or for that of subsequent links.

Vishay products are not designed for use in life-saving or life-sustaining applications or any application in which the failure of the Vishay product could result in personal injury or death unless specifically qualified in writing by Vishay. Customers using or selling Vishay products not expressly indicated for use in such applications do so at their own risk. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay. Product names and markings noted herein may be trademarks of their respective owners.