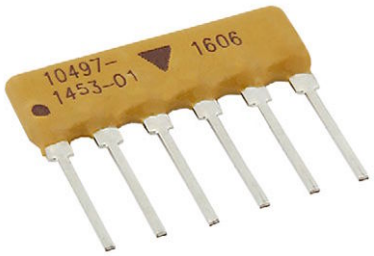
Decade Divider, Single In-Line, Thin Film Divider, Through Hole Resistor Network



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

Pb-free Available

RoHS* Available

Note

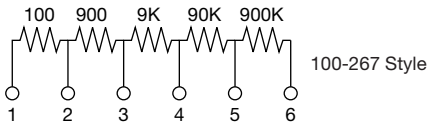
* This datasheet provides information about parts that are RoHS-compliant and / or parts that are non RoHS-compliant. For example, parts with lead (Pb) terminations are not RoHS-compliant. Please see the information / tables in this datasheet for details

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.

TYPICAL PERFORMANCE

●	ABSOLUTE	TRACKING
TCR	25	5
	ABSOLUTE	RATIO
TOL.	0.1	0.01

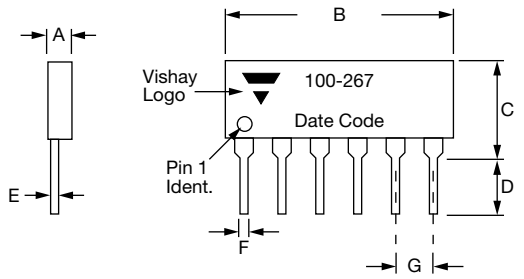
SCHEMATIC



100-267 Style

STANDARD ELECTRICAL SPECIFICATIONS		
TEST	**SPECIFICATIONS**	**CONDITIONS**
Material	Passivated nichrome	-
Pin/Lead Number	6	-
Resistance Range	100 Ω to 1 MΩ total	-
TCR: Absolute	± 25 ppm/°C	0 °C to +70 °C
TCR: Tracking	± 5 ppm/°C	0 °C to +70 °C
Tolerance: Absolute	± 0.1 %	+25 °C
Tolerance: Ratio	± 0.01 % to ± 0.1 %	+25 °C
Power Rating: Resistor	0.100 W	Maximum at +70 °C
Power Rating: Package	0.500 W	Maximum at +70 °C
Stability: Absolute	1000 ppm	2000 h at +70 °C
Stability: Ratio	200 ppm	2000 h at +70 °C
Voltage Coefficient	0.1 ppm/V	-
Working Voltage	300 V	-
Operating Temperature Range	0 °C to +70 °C	-
Storage Temperature Range	-55 °C to +125 °C	-
Noise	- 20 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

DIMENSIONS AND IMPRINTING in inches and millimeters

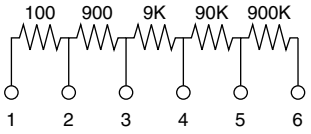


DIMENSION	INCHES	MILLIMETERS
A	0.100 max.	2.54
B	0.620 max.	15.78
C	0.350 max.	8.89
D	0.125 min.	3.18
E	0.010 typ.	0.25
F	0.020 typ.	0.51
G	0.1 (5 x) typ.	2.54

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



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

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

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

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

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)	TOLERANCE (1 digit)	PACKAGING (2 digits)
VTF100-267 (Tin lead) **VTF100S-267** (Lead (Pb)-free) (e1)	**T** = 0.01 % ratio **Q** = 0.025 % ratio **A** = 0.05 % ratio **B** = 0.1 % ratio	**UF** = tubed

Historical Part Number Example: 100-267Q (for reference purposes only)

100	267	Q
SERIES	MODEL	TOLERANCE

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