



Voltage Divider Series

Small Package Voltage Dividers

FEATURES

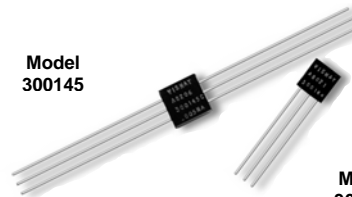
Models 300144 and 300145

- Typical Temperature Coefficient of Resistance
± 2.0 ppm / °C (-55 °C to +125 °C, 25 °C as reference)
- TCR Tracking: to ± 0.5 ppm/°C
- Ratio Stability: 50 ppm. At 0.2 W @ 70 °C for 2000 hours.
- Ratio Match Tolerance: to 0.005%

Model VSR144

- Typical Temperature Coefficient of Resistance:
± 8 ppm/°C (-55 °C to +125 °C, 25°C as reference)
- TCR Tracking: to ± 1.5 ppm/°C
- Ratio Stability: 100 ppm. At 0.2 W. @ 70 °C, for 2000 hours.
- Ratio Tolerance: to ± 0.01%

Model
300145



RoHS
COMPLIANT

Model
300144



Model
VSR144

The VSR144 is an industrial version of the 300144. This device has the stability that is inherent in foil but does not offer the tight match, TCR or TCR tracking of the 300144. This product is quite satisfactory for most industrial purposes and should be considered when the total performance of the 300144 is not necessary.

Model	Resistance Range Available ¹ (Ω)	Power Rating ^{2,4}	Standard Resistance Tolerance		TCR Tracking Available to
			Absolute Available to	Ratio Match Available to	
300144 and 300145 ³	1K/1K 1K/2K 1.5K/3K 2K/2K 2K/3K 2K/4K 2K/20K 2.7K/10K	0.2W @ +70°C (for the entire resistive element R1 + R2) divided proportionally between the two elements.	±0.005%	±0.005%	±0.5 ppm/°C For Like Values
VSR144	3K/6K 5K/5K 5K/10K 5.5K/7.7K 6K/6K 6K/20K 10K/10K 10K/20K 15K/15K 20K/20K		±0.01%	±0.01%	± 1.5 ppm/°C For Like Values ±2.0 ppm/°C Standard

1. For resistance ratios not shown, contact TxCC's Applications Engineering Department.
The 300144 can be made available in any required ratio between the resistance values of 100 Ω and 20K Ω, such that R1 can be any value between 100 Ω and 20K Ω and R2 can also be any value between 100 Ω and 20K Ω.
2. Power is proportional to the divider ratio.
Example: In a 300144 (1K/10K dual), the power rating would be 18 mW on the 1 K and 182 mW on the 10K, for a total of 200 mW on R1 + R2.

$$P1 = \left(\frac{R1}{R1 + R2} \right) P \quad P2 = \left(\frac{R2}{R1 + R2} \right) P$$

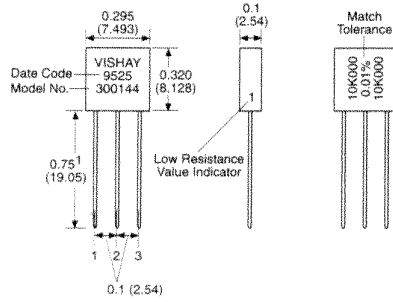
3. Any value from 100Ω to 20KΩ inclusive is available with some derating of power.
4. Maximum working voltage is 200 Volts.



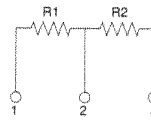
VISHAY PRECISION GROUP BULK METAL® FOIL TECHNOLOGY



Model 300144



Schematic ²

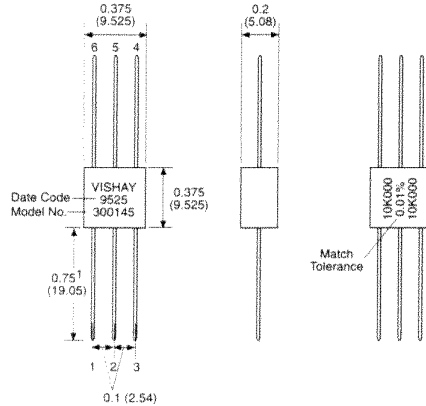


Dimensions are in inches (millimeters).

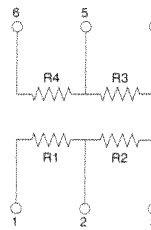
Tolerance: $\pm 0.010''$

1. Lead wires: #22 AWG tinned copper, 0.75" minimum length.
2. Each resistor contains 1 chip of two resistive elements.

Model 300145

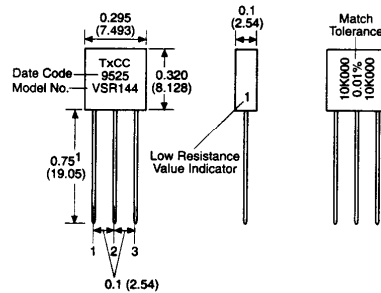


Schematic ²

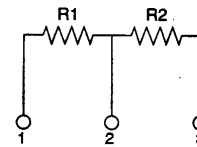


Standard Printing and Dimensions

Model VSR144



Schematic ²



Dimensions are in inches (millimeters).
Tolerance: $\pm 0.010''$

1. Lead wires: #22 AWG tinned copper, 0.75" minimum length.
2. Each resistor contains 1 chip consisting of two resistive elements.

HOW TO ORDER MODEL VSR144

Specify Vishay Ultra Precision Miniature Voltage Dividers as follows:

Model Number	Resistance Value*	Absolute Tolerance	Ratio Match Tolerance	TCR Tracking
VSR144	R1 = 10KΩ R2 = 10KΩ	$\pm 0.05\%$ $\pm 0.05\%$	+/-0.02%	1.5 ppm/C

* Specify the resistance value for each resistor of the set - even if all values are the same.