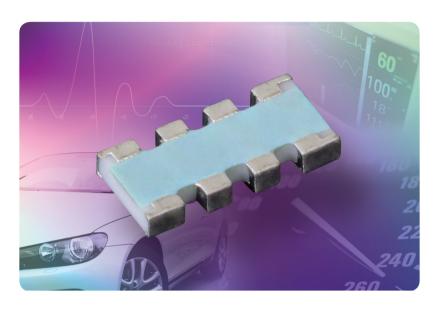


## THIN FILM RESISTOR ARRAYS

## ACAS 0612 Precision Series

# **Precision Thin Film Chip Resistor Arrays**



#### **KEY BENEFITS**

- · Four resistors in one package
- Two pairs or four equal resistor values
- Relative TCR down to ± 5 ppm/K
- Relative tolerance down to ± 0.05 %
- Pure Sn termination on Ni barrier layer
- RoHS-compliant

#### **APPLICATIONS**

- Voltage dividers
- Feedback circuits
- Signal conditioning

- Measurement bridges
- DC/DC converters
- Power supplies

#### **RESOURCES**

- Datasheet: ACAS 0612 Precision www.vishay.com/doc?28751
- For technical questions contact thinfilmarray@vishay.com
- Material categorization: For definitions of compliance please see <a href="http://www.vishay.com/doc?99912">http://www.vishay.com/doc?99912</a>



One of the World's Largest Manufacturers of Discrete Semiconductors and Passive Components

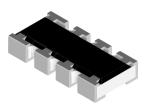




# THIN FILM RESISTOR ARRAYS

### ACAS 0612 Precision Series

## **Precision Thin Film Chip Resistor Arrays**



The ACAS 0612 thin film chip resistor arrays combine the proven reliability of precision thin film chip resistor products with the advantages of chip resistor arrays. Defined relative tolerance (matching) and relative TCR (tracking) make this product perfectly suited for applications with outstanding requirements towards stable fixed resistor ratios. A small package enables the design of high density circuits in combination with reduction of assembly costs. The ACAS is available with equal or different resistor values.

#### **FEATURES**

- · Advanced thin film technology
- Two pairs or four equal resistor values
- Relative TCR down to ± 5 ppm/K (tracking)
- Relative tolerance down to ± 0.05 % (matching)
- Pure Sn termination on Ni barrier layer

#### **APPLICATIONS**

- · Precision analog circuits
- Voltage divider
- · Feedback circuits
- Signal conditioning

TECHNICAL SPECIFICATIONS	
DESCRIPTION	ACAS 0612
EIA size	0612
Metric size	RR1632M
Configuration, isolated	4 x 0603
Design:	
All equal	AE
Two pairs	TP
Resistance values	47 $\Omega$ to 221 k $\Omega$ <sup>(1)</sup>
Absolute tolerance	± 0.1 %
Relative tolerance	± 0.05 %
Absolute temperature coefficient	± 25 ppm/K; ± 15 ppm/K; ± 10 ppm/K
Relative temperature coefficient	± 15 ppm/K; ± 10 ppm/K; ± 5 ppm/K
Max. resistance ratio $R_{\rm min.}/R_{\rm max.}$	1:5
Rated dissipation: P <sub>70</sub>	
Element	0.1 W
Package, 4 x 0603	0.3 W
Operating voltage	75 V
Operating temperature range	- 55 °C to 125 °C
Permissible film temperature	125 °C <sup>(2)</sup>
Insulation voltage ( $U_{\rm ins}$ ) against ambient and between isolated resistors, continuous	75 V

#### Notes

- The relative figures of tolerance, TCR and drift are related to a medial axis between the maximum and minimum permissable deviation of the resistor array. For detailed information please refer to the application note: Increasing Accuracy in Feedback Circuits and Voltage Dividers with Thin Film Chip Resistor Arrays (<a href="https://www.vishay.com/doc?28194">www.vishay.com/doc?28194</a>).
- (1) Resistance values to be selected from E24; E192.
- (2) For higher max. film temperature and AEC-Q200 qualification please refer to data sheet ACAS 0606 AT, ACAS 0612 AT Precision available on our web site at <a href="https://www.vishay.com/doc?28770">www.vishay.com/doc?28770</a>.