



## Features

- RoHS compliant\*
- Convex termination style
- 4 isolated elements in an 06 package width
- Resistance tolerance:  $\pm 5\%$
- Resistance range: 10 ohms to 1 megohm & zero-ohm jumper
- Sulfur-resistant design



This series is obsolete.

The Model [CAY16A-AS](#) series is the recommended replacement.

## CAY16-AS Series - Sulfur-Resistant Thick Film Chip Arrays

### General Characteristics

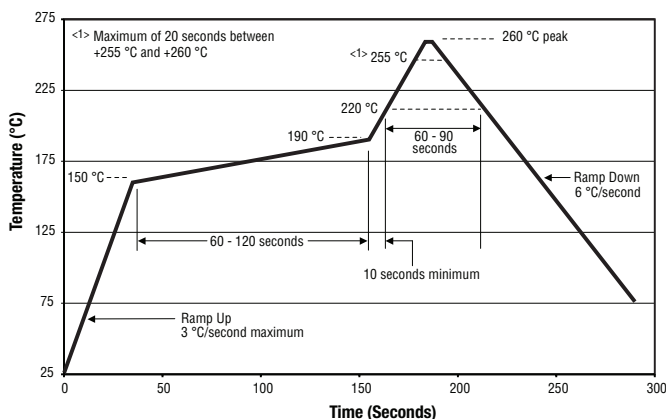
Characteristic	CAY16-AS
Number of Elements (Isolated)	4
Power Rating @ 70 °C per Resistor	63 mW
Resistor Tolerance	$\pm 5\%$
Resistance Range (E24) plus Zero-ohm Jumper	10 ohms to 1 megohm
Temperature Coefficient of Resistance (TCR)	$\pm 200$ ppm
Maximum Overload Voltage	100 V
Maximum Working Voltage	50 V
Operating Temperature Range	-55 to +125 °C
Storage Conditions	+5 ~ +40 °C, 25~75 % RH, 1 year
Derating Temperature	+70 °C
Packaging (Paper Tape)	5,000 pcs. per reel
Zero-ohm Jumper: Current Rating Maximum Resistance	1 A per element 50 milliohms

### Environmental Characteristics

Specification	Test Method (JIS C 5201-1)	Characteristics
Short Time Overload	Rated voltage x 2.5, 5 seconds	$\pm(2\% + 0.1 \text{ ohm})$
Soldering Heat	+260 °C $\pm 5$ °C, 10 $\pm 1$ seconds	$\pm(1\% + 0.05 \text{ ohm})$
Temperature Cycling	-55 °C (30 minutes) - normal (30 minutes) +125 °C (30 minutes) - normal (30 minutes), 5 cycles	$\pm(1\% + 0.05 \text{ ohm})$
Moisture Load Life	+40 °C $\pm 2$ °C, rated voltage, 90 minutes ON, 30 minutes OFF, 1000 hours	$\pm(3\% + 0.1 \text{ ohm})$
Load Life	+70 °C, rated voltage, 90 minutes ON, 30 minutes OFF, 1000 hours	$\pm(3\% + 0.1 \text{ ohm})$
Sulfur Test	3 ppm H <sub>2</sub> S, +50 °C, 90~95 % RH, 100 hours	$\pm(5\% + 0.1 \text{ ohm})$

NOTE: Zero-ohm jumper <50 milliohms except sulfur test <100 milliohms.

### Soldering Profile



### Additional Information

Click these links for more information:



### How To Order

CA Y 16 - 103 J 4 AS

Chip Array

Type

- Y = Convex

Model

- 16 = 06 Package Width

Resistance Code

- First two digits are significant, third digit represents number of zeros to follow (example: 103 = 10K ohms)

Resistance Tolerance

- J =  $\pm 5\%$

Resistors

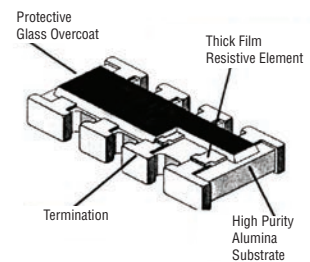
- 4 = 4 Resistors

Special Characteristics

- AS = Sulfur-resistant, Tin-plated terminations (RoHS compliant)

For Standard Values Used in Capacitors, Inductors, and Resistors, [click here](#).

### Construction



**WARNING Cancer and Reproductive Harm**

[www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

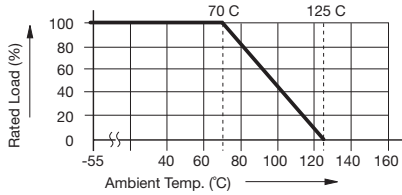
\*RoHS Directive 2015/863, Mar 31, 2015 and Annex. Specifications are subject to change without notice. Users should verify actual device performance in their specific applications.

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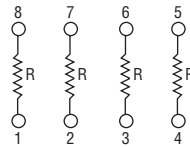
# CAY16-AS Series - Sulfur-Resistant Thick Film Chip Arrays



## Derating Curve



## Isolated Circuit

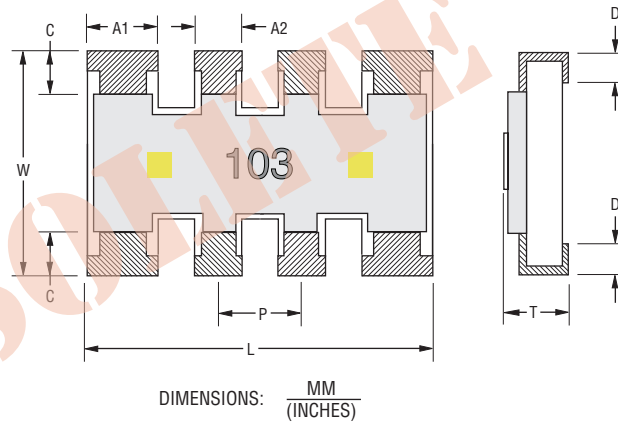


## Typical Part Marking

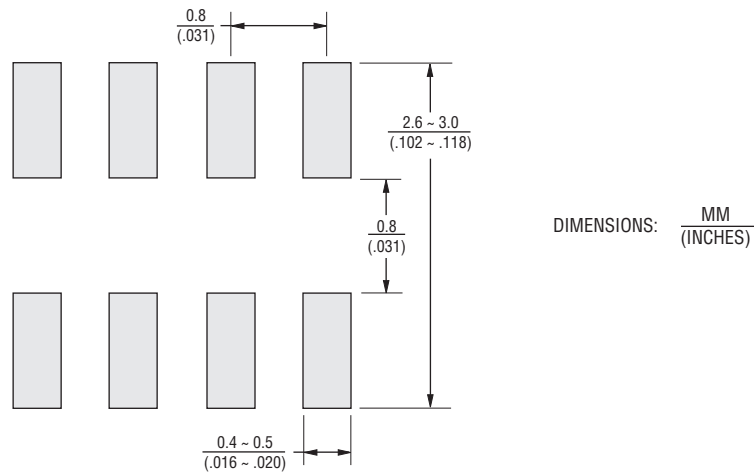
Marking.....Refer to Product Dimensions  
 Marking Color.....Yellow  
 Zero-ohm Jumper Marking .....000

## Product Dimensions

Dim.	CAY16-AS
L	$\frac{3.20 \pm 0.10}{(0.126 \pm 0.004)}$
W	$\frac{1.60 \pm 0.10}{(0.063 \pm 0.004)}$
A1	$\frac{0.60 \pm 0.15}{(0.024 \pm 0.006)}$
A2	$\frac{0.40 \pm 0.15}{(0.016 \pm 0.006)}$
C	$\frac{0.30 \pm 0.20}{(0.012 \pm 0.008)}$
D	$\frac{0.25 \pm 0.15}{(0.010 \pm 0.006)}$
T	$\frac{0.50 \pm 0.10}{(0.020 \pm 0.004)}$
P	$\frac{0.80}{(0.031)}$



## Recommended Land Pattern

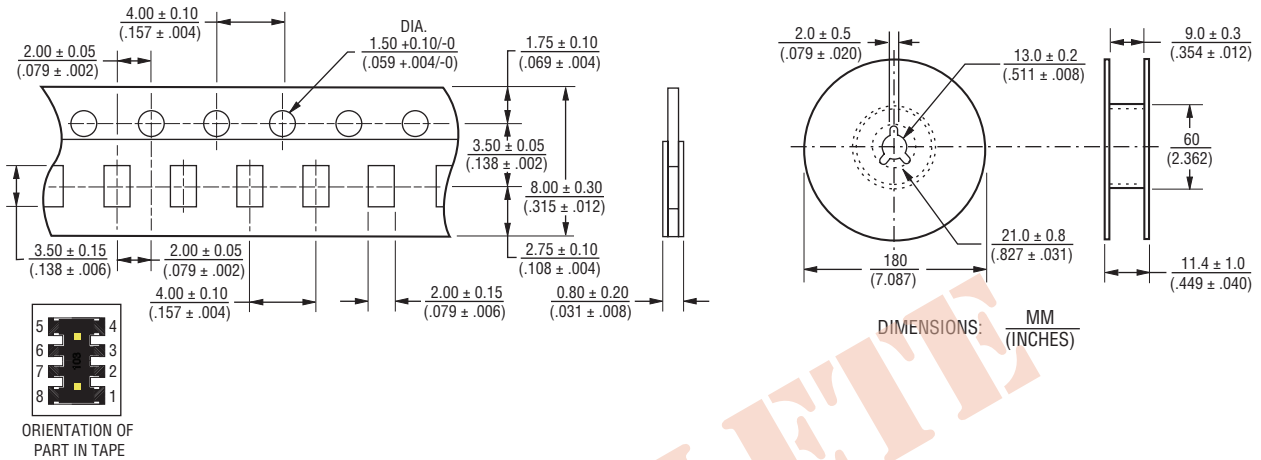


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# CAY16-AS Series - Sulfur-Resistant Thick Film Chip Arrays

**BOURNS®**

## Packaging Specifications



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