

## 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

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

### General Characteristics

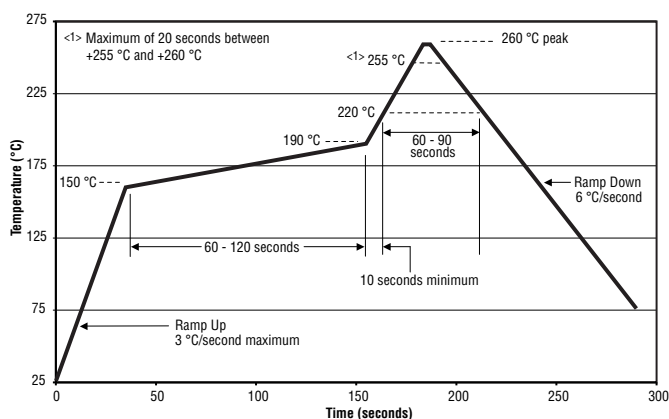
Characteristic	CAY16-AS
Number of Elements (Isolated)	4
Power Rating @ 70 °C per Resistor	63 mW
Resistor Tolerance	$\pm 5\%$
Resistance Range (E24) plus Zero-ohm Jumper	10 ohms to 1 megohm
Temperature Coefficient of Resistance (TCR)	$\pm 200$ ppm
Maximum Overload Voltage	100 V
Maximum Working Voltage	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



### 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)
- 000 = Zero-ohm jumper

Resistance Tolerance ————

- J =  $\pm 5\%$

Resistors ————

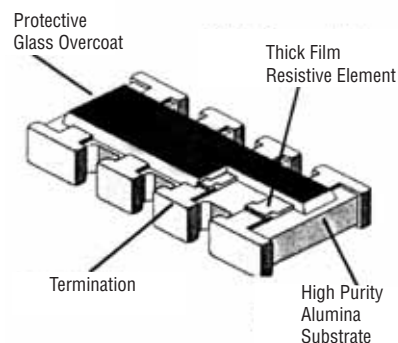
- 4 = 4 Resistors

Special Characteristics ————

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

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

### Construction



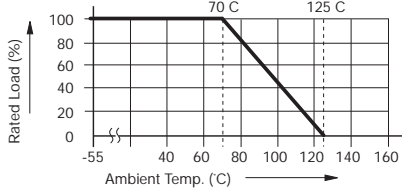
**WARNING**  
Cancer and Reproductive Harm  
[www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

\*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. The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at [www.bourns.com/docs/legal/disclaimer.pdf](http://www.bourns.com/docs/legal/disclaimer.pdf)

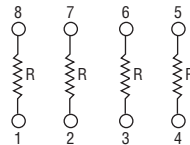
# CAY16-AS Series - Sulfur-Resistant Thick Film Chip Arrays



## Derating Curve



## Isolated Circuit

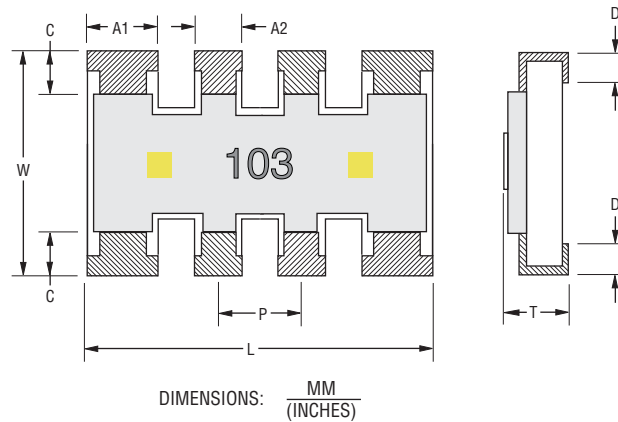


## Typical Part Marking

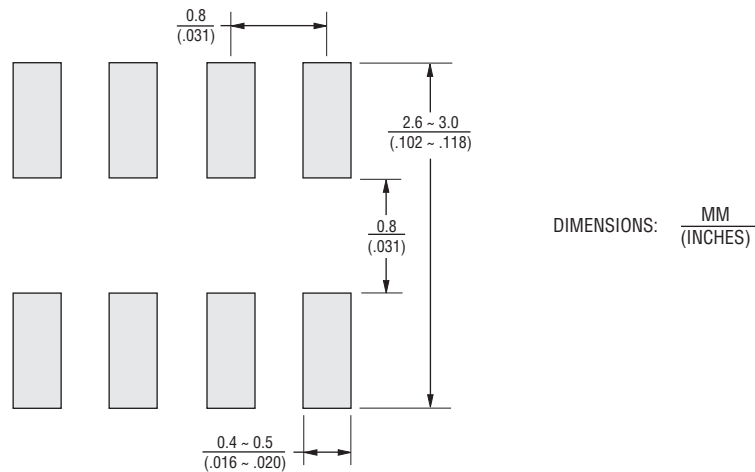
Marking.....Refer to Product Dimensions  
 Marking Color.....Yellow  
 Zero-ohm Jumper Marking .....000

## 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	$\frac{0.80}{(0.031)}$



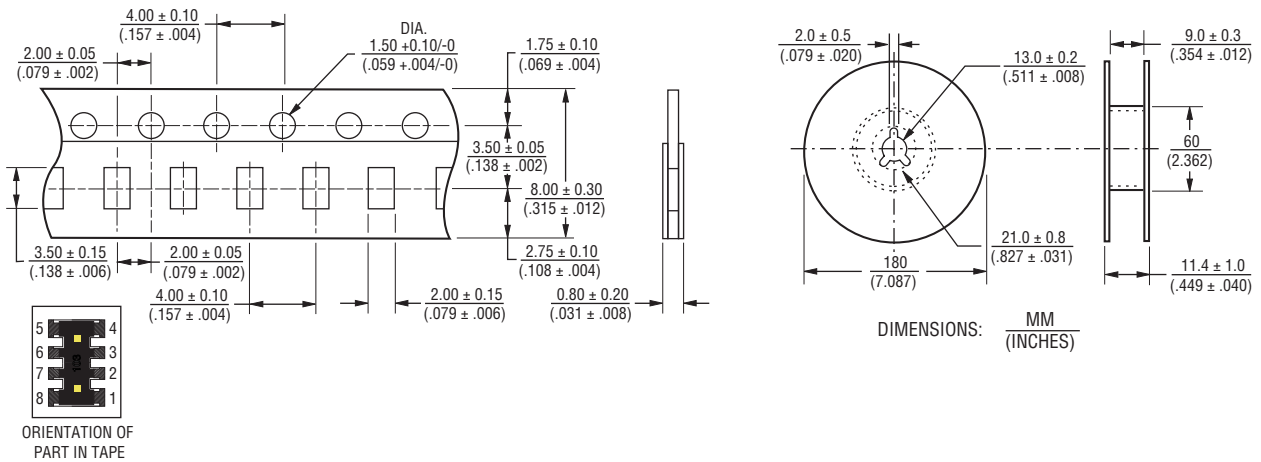
## Recommended Land Pattern



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

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## Packaging Specifications



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www.bourns.com

09/19

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

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