

LEAD FREE
VERSIONS ARE
ROHS COMPLIANT



BOURNS®

Features

- Lead free version available (see How to Order "Termination" options)
- RoHS compliant*
- Convex and concave terminals
- 2, 4 or 8 isolated elements available
- Resistance tolerance $\pm 1\%$ and $\pm 5\%$
- Resistance range: 10 ohms to 1 megohm

CAT/CAY 16 Series - Chip Resistor Arrays

Specifications

Requirement	Characteristics	Test Method
Short Time Overload	$\pm 1\%$ ($\pm 2\%$ for CAT16-J8 & CAY16-J8)	Rated Voltage X 2.5, 5 seconds
Soldering Heat	$\pm 1\%$	260 °C ± 5 °C, 10 seconds ± 1 second
Temperature Cycling (5)	$\pm 1\%$	125 °C (30 minutes) - normal (15 minutes) -30 °C (30 minutes) - normal (15 minutes)
Moisture Load Life	$\pm 2\%$ ($\pm 3\%$ for CAT16-J8 & CAY16-J8)	1000 hours
Load Life	$\pm 2\%$ ($\pm 3\%$ for CAT16-J8 & CAY16-J8)	1000 hours

Characteristics

Characteristics	CAT16/CAY16
Number of Elements	2 (J2), 4 (F4, J4), 6 (J6)
Power Rating Per Resistor	62 mW (31 mW for CAY16-J6)
Resistance Tolerance	$\pm 1\%$, $\pm 5\%$
Resistance Range E24 (J), E96 + E24 (F)	10 ohms - 1 megohm
Max. Working Voltage	50 V (25 V for CAY16-J6)
Operating Temp. Range	-55 °C - 125 °C
Rating Temperature	+70 °C

How To Order

CA Y 16 - 103 J 4

Chip Arrays _____

Type _____

- T = Concave
- Y = Convex

Models _____

- J2 = 0608 Package Size
- F4, J4 = 1206 Package Size
- J8 = 2408 Package Size for CAT16;
1506 Package Size for CAY16

Resistance Code _____

- 103 = 10 K ohms
- 1003 = 100 K ohms (1 % tolerance)

Resistance Tolerance _____

- J = $\pm 5\%$
- F = $\pm 1\%$ (4 resistor package only)

Resistors _____

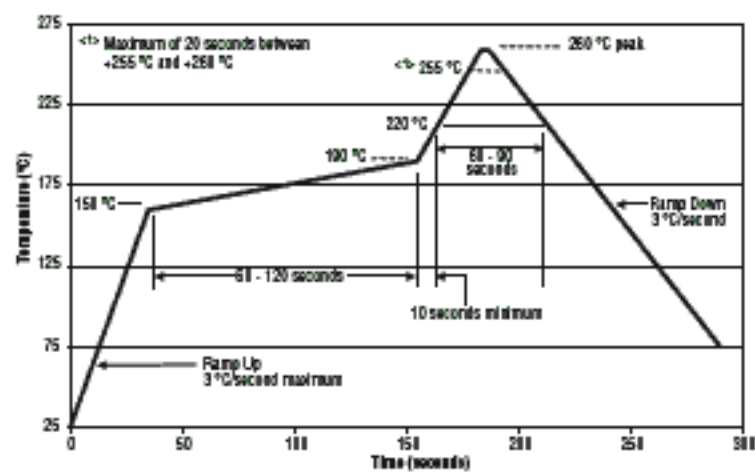
- 2 = 2 isolated Resistors
- 4 = 4 isolated Resistors
- 6 = 6 isolated Resistors

Terminations* _____

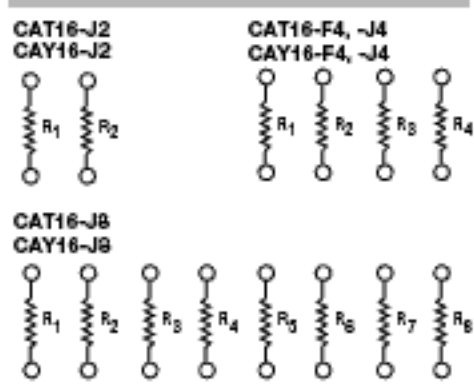
- LF = Tin-plated (lead free)
- Blank = Solder-plated

*Model CAY16-J8 is available only with tin-plated terminations.

Soldering Profile for Lead Free Chip Resistors and Arrays



Schematics



*RoHS Directive 2002/95/EC Jan 27 2003 including Annex
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Customers should verify actual device performance in their specific applications.

CAT/CAY 16 Series - Chip Resistor Arrays

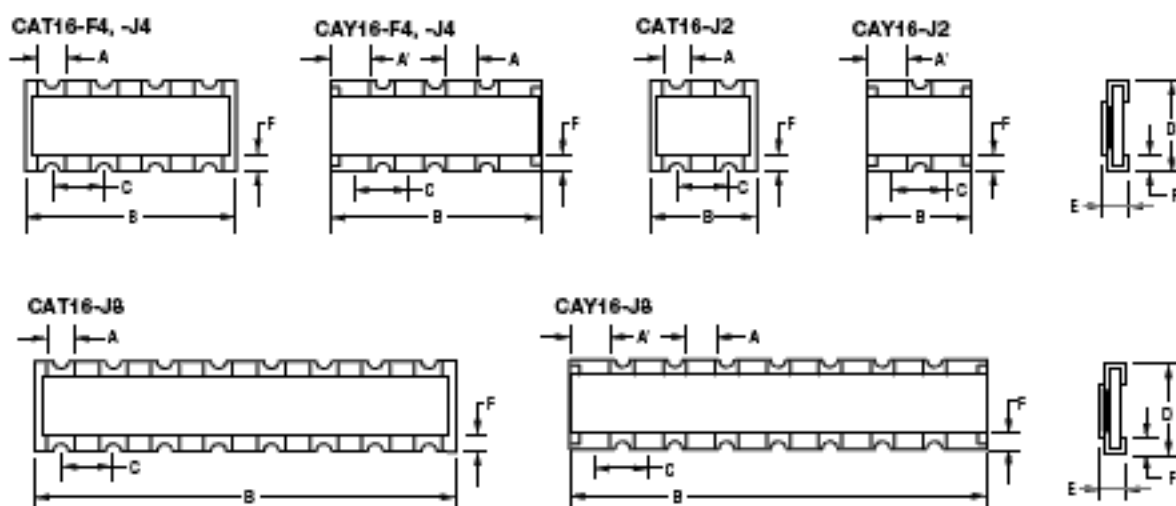
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Dimensions

Model	A	A'	B	C	D	E	F
CAT16-F4, -J4	$\frac{0.40 \pm 0.15}{(.016 \pm .006)}$	—	$\frac{3.20 \pm 0.20}{(.126 \pm .008)}$	$\frac{0.80 \pm 0.05}{(.032 \pm .002)}$	$\frac{1.60 \pm 0.20}{(.063 \pm .008)}$	$\frac{0.50 \pm 0.10}{(.020 \pm .004)}$	$\frac{0.30 \pm 0.15}{(.012 \pm .006)}$
CAY16-F4, -J4	$\frac{0.50 \pm 0.15}{(.002 \pm .006)}$	$\frac{0.70 \pm 0.10}{(.027 \pm .008)}$	$\frac{3.20 \pm 0.20}{(.126 \pm .008)}$	$\frac{0.80 \pm 0.05}{(.032 \pm .002)}$	$\frac{1.60 \pm 0.20}{(.063 \pm .008)}$	$\frac{0.50 \pm 0.10}{(.020 \pm .004)}$	$\frac{0.30 \pm 0.20}{(.012 \pm .008)}$
CAT16-J2	$\frac{0.40 \pm 0.15}{(.016 \pm .006)}$	—	$\frac{1.60 \pm 0.15}{(.063 \pm .006)}$	$\frac{0.80 \pm 0.05}{(.032 \pm .002)}$	$\frac{1.60 \pm 0.15}{(.063 \pm .006)}$	$\frac{0.60 \pm 0.15}{(.024 \pm .006)}$	$\frac{0.30 \pm 0.20}{(.012 \pm .008)}$
CAY16-J2	—	$\frac{0.60 \pm 0.15}{(.024 \pm .006)}$	$\frac{1.60 \pm 0.15}{(.063 \pm .006)}$	$\frac{0.80 \pm 0.05}{(.032 \pm .002)}$	$\frac{1.60 \pm 0.15}{(.063 \pm .006)}$	$\frac{0.50 \pm 0.10}{(.020 \pm .004)}$	$\frac{0.25 \pm 0.10}{(.010 \pm .004)}$
CAT16-J8	$\frac{0.40 \pm 0.15}{(.016 \pm .006)}$	—	$\frac{6.40 \pm 0.20}{(.252 \pm .008)}$	$\frac{0.80 \pm 0.15}{(.032 \pm .006)}$	$\frac{1.60 \pm 0.20}{(.063 \pm .008)}$	$\frac{0.60 \pm 0.15}{(.024 \pm .006)}$	$\frac{0.30 \pm 0.20}{(.012 \pm .008)}$
CAY16-J8	$\frac{0.30 \pm 0.15}{(.012 \pm .006)}$	$\frac{0.30 \pm 0.15}{(.012 \pm .006)}$	$\frac{3.80 \pm 0.20}{(.15 \pm .008)}$	$\frac{0.50 \pm 0.05}{(.02 \pm .002)}$	$\frac{1.60 \pm 0.20}{(.063 \pm .008)}$	$\frac{0.50 \pm 0.10}{(.02 \pm .004)}$	$\frac{0.30 \pm 0.15}{(.012 \pm .006)}$

DIMENSIONS ARE: $\frac{\text{MM}}{\text{(INCHES)}}$

Configurations



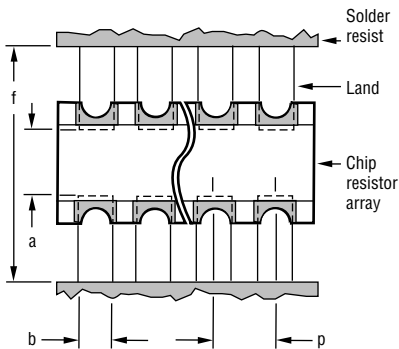
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CAT/CAY 16 Series - Chip Resistor Arrays

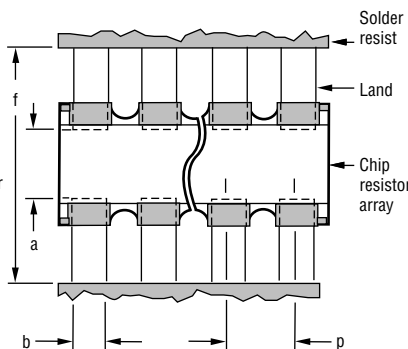
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Land Patterns

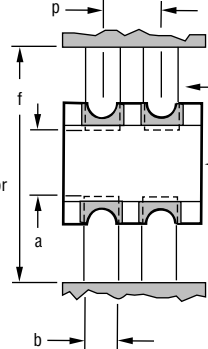
CAT16-F4, -J4, -J8



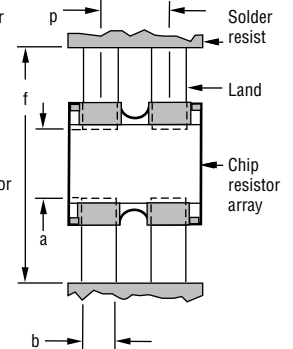
CAY16-F4, -J4, -J8



CAT16-J2

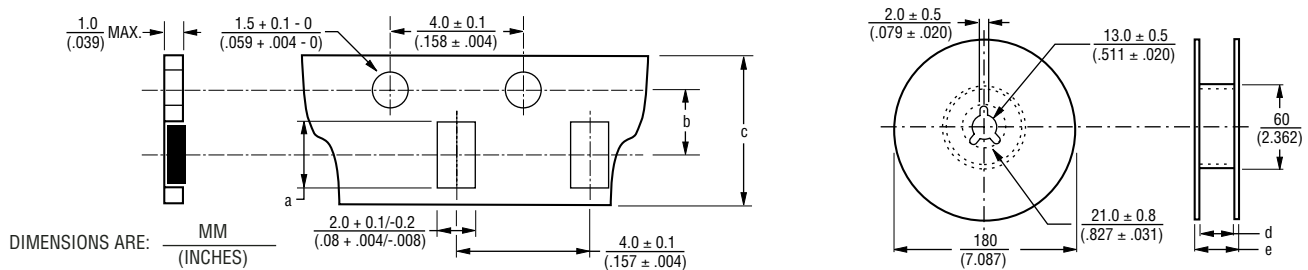


CAY16-J2



Model	a	b	p	f
CAT16-F4, -J4, -J8	$\frac{0.7 \text{ to } 0.9}{(.028 \text{ to } .035)}$	$\frac{0.4 \text{ to } 0.45}{(.016 \text{ to } .0178)}$	$\frac{0.80}{(.032)}$	$\frac{2.0 \text{ to } 2.2}{(.079 \text{ to } .087)}$
CAY16-F4, -J4	$\frac{0.7 \text{ to } 0.9}{(.028 \text{ to } .035)}$	$\frac{0.4 \text{ to } 0.45}{(.016 \text{ to } .0178)}$	$\frac{0.80}{(.032)}$	$\frac{2.4 \text{ to } 2.8}{(.094 \text{ to } .11)}$
CAY16-J8	$\frac{0.7 \text{ to } 0.9}{(.028 \text{ to } .035)}$	$\frac{0.3 \text{ to } 0.35}{(.012 \text{ to } .014)}$	$\frac{0.50}{(.020)}$	$\frac{2.0 \text{ to } 2.2}{(.079 \text{ to } .087)}$
CAT16-J2	$\frac{0.7 \text{ to } 0.9}{(.028 \text{ to } .035)}$	$\frac{0.4 \text{ to } 0.45}{(.016 \text{ to } .0178)}$	$\frac{0.80}{(.032)}$	$\frac{2.2 \text{ to } 2.6}{(.087 \text{ to } .102)}$
CAY16-J2	$\frac{0.7 \text{ to } 0.9}{(.028 \text{ to } .035)}$	$\frac{0.4 \text{ to } 0.45}{(.016 \text{ to } .0178)}$	$\frac{0.80}{(.032)}$	$\frac{2.0 \text{ to } 2.2}{(.079 \text{ to } .087)}$

Packaging Dimensions



Model	a	b	c	d	e
CAT16-F4, -J4 & CAY16-F4, J4	$\frac{3.40 \pm 0.10}{(.134 \pm .004)}$	$\frac{3.50 \pm .005}{(.138 \pm .004)}$	$\frac{8.0 \pm 0.3}{(.315 \pm .012)}$	$\frac{9.0 \pm 0.3}{(.354 \pm .012)}$	$\frac{11.4 \pm 1.0}{(.449 \pm .040)}$
CAT16-J2 & CAY16-J2	$\frac{1.80 \pm 0.10}{(.070 \pm .004)}$	$\frac{3.50 \pm .005}{(.138 \pm .004)}$	$\frac{8.0 \pm 0.3}{(.315 \pm .012)}$	$\frac{9.0 \pm 0.3}{(.354 \pm .012)}$	$\frac{11.4 \pm 1.0}{(.449 \pm .040)}$
CAT16-J8	$\frac{6.90 \pm 0.20}{(.272 \pm .008)}$	$\frac{5.50 \pm 0.10}{(.217 \pm .004)}$	$\frac{12.0 \pm 0.2}{(.472 \pm .008)}$	$\frac{13.0 \pm 0.2}{(.512 \pm .008)}$	$\frac{15.4 \pm 1.0}{(.606 \pm .040)}$
CAY16-J8	$\frac{4.10 \pm 0.15}{(.161 \pm .012)}$	$\frac{3.50 \pm 0.05}{(.138 \pm .002)}$	$\frac{8.0 \pm 0.3}{(.315 \pm .012)}$	$\frac{9.0 \pm 0.3}{(.354 \pm .012)}$	$\frac{11.4 \pm 1.0}{(.449 \pm .040)}$

- 5,000 pcs. per reel (J2, J4, CAY16-J8)
- 4,000 pcs. per reel (CAT16-J8)
- Paper tape

REV.03/15/04

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