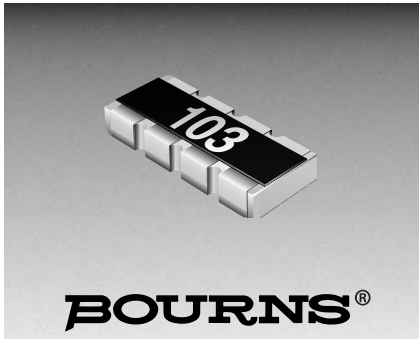




Features

- 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

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CAT/CAY 16 Series - Chip Resistor Arrays

Specifications

Requirement	Characteristics	Test Method
Short Time Overload	$\pm 1\%$	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	$\pm 2\%$	1000 hours
Load Life	$\pm 2\%$	1000 hours

Characteristics

Characteristics	CAT16/CAY16
Number of Elements	2 (J2), 4 (F4, J4), 8 (J8)
Power Rating Per Resistor	62 mW
Resistance Tolerance	$\pm 1\%$, $\pm 5\%$
Resistance Range E24 (J), E96 + E24 (F)	10 ohms - 1 megohm
Max. Working Voltage	50 V
Operating Temp. Range	-55 °C - 125 °C
Rating Temperature	+70 °C

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	$\frac{0.40 \pm 0.15}{(.016 \pm .006)}$	—	$\frac{6.40 \pm 0.20}{(.252 \pm .008)}$	$\frac{0.80 \pm 0.15}{(.032 \pm .006)}$	$\frac{1.60 \pm 0.20}{(.063 \pm .008)}$	$\frac{0.60 \pm 0.15}{(.024 \pm .006)}$	$\frac{0.30 \pm 0.20}{(.012 \pm .008)}$

How To Order

CA Y 16 - 103 J 4

Chip Arrays —

Type

- T = Concave
- Y = Convex

Models

- J2 = 0606 Package Size
- F4, J4 = 1206 Package Size
- J8 = 2406 Package Size

Resistance Code

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

Resistance Tolerance

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

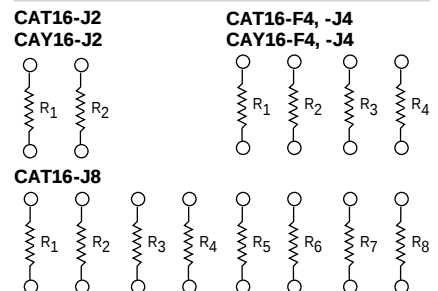
Resistors

- 2 = 2 Isolated Resistors
- 4 = 4 Isolated Resistors
- 8 = 8 Isolated Resistors

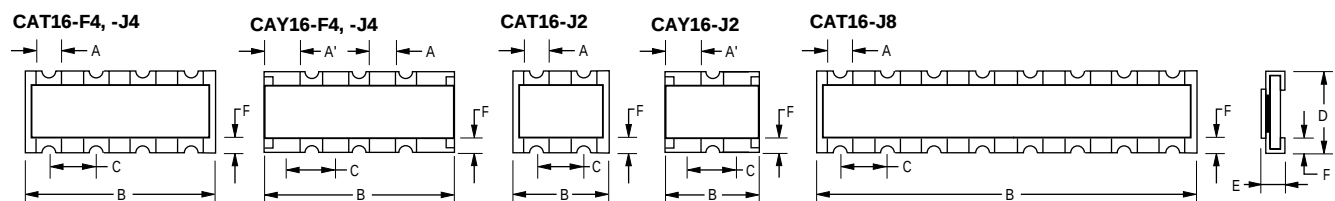
Terminations

- LF = Tin-plated
- Blank = Solder-plated

Schematics



Configurations



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

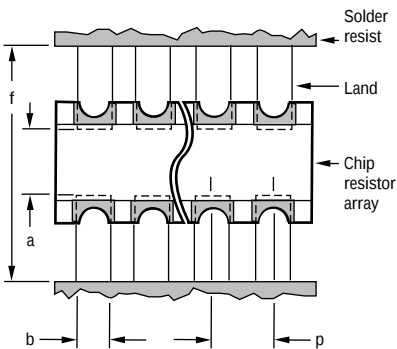
Specifications are subject to change without notice.
Customers should verify actual device performance in their specific applications.

CAT/CAY 16 Series - Chip Resistor Arrays

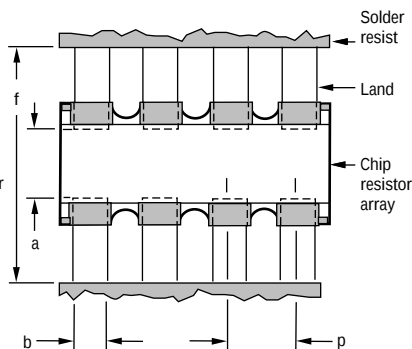
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Land Patterns

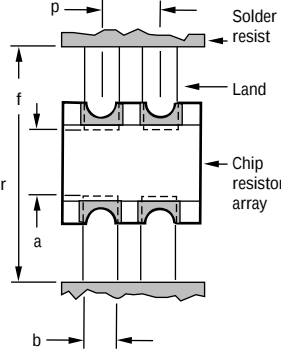
CAT16-F4, -J4, -J8



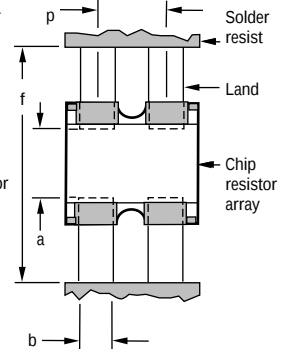
CAY16-F4, -J4



CAT16-J2

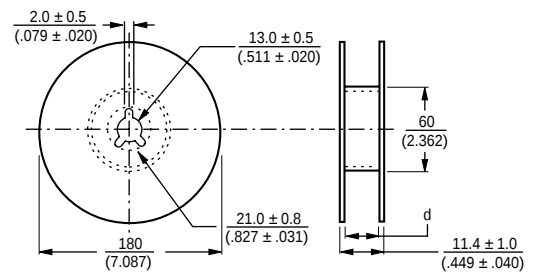
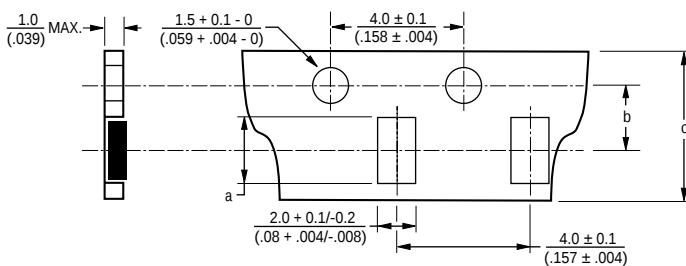


CAY16-J2



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	$\frac{0.7 \text{ to } 0.9}{(.028 \text{ to } .035)}$	$\frac{0.4 \text{ to } 0.45}{(.016 \text{ to } .0178)}$	$\frac{0.80}{(.032)}$	$\frac{2.4 \text{ to } 2.8}{(.094 \text{ to } .11)}$
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
CAT16-F4, -J4 & CAY16-F4, J4	$\frac{3.40 \pm 0.10}{(.134 \pm .004)}$	$\frac{3.50 \pm .005}{(.138 \pm .004)}$	$\frac{8.0 \pm 0.3}{(.315 \pm .012)}$	$\frac{9.0 \pm 0.3}{(.354 \pm .012)}$
CAT16-J2 & CAY16-J2	$\frac{1.80 \pm 0.10}{(.070 \pm .004)}$	$\frac{3.50 \pm .005}{(.138 \pm .004)}$	$\frac{8.0 \pm 0.3}{(.315 \pm .012)}$	$\frac{9.0 \pm 0.3}{(.354 \pm .012)}$
CAT16-J8	$\frac{6.90 \pm 0.20}{(.272 \pm .008)}$	$\frac{5.50 \pm 0.10}{(.217 \pm .004)}$	$\frac{12.0 \pm 0.2}{(.472 \pm .008)}$	$\frac{13.0 \pm 0.2}{(.512 \pm .008)}$

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

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

REV. 06/03

Specifications are subject to change without notice.
Customers should verify actual device performance in their specific applications.

Chip Resistor Arrays - Application Note

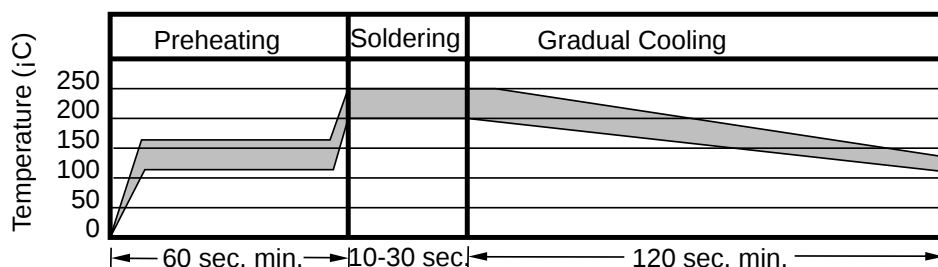
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Component Placement

- Reduce the mechanical stress to a minimum during and after placing of the unit in order not to damage the terminals and protective coating.
- Misplacement of components may cause solder bridges.

Soldering

- Reflow soldering: Recommendation is shown in the following chart.
- Wave soldering: Recommendation according to IEC standards.
- Hand soldering: Don't touch the protective coating of the part. Solder within 3 seconds when the temperature is over 280 °C.



Cleaning

A recommended cleaning method is shown in the following table.

Solvents	Cleaning Condition	
	Dipping	Ultrasonic Wave Washing
Isopropyl alcohol	5 minutes maximum	1 minute maximum Power: 20 W/L Frequency: 10 to 100 kHz