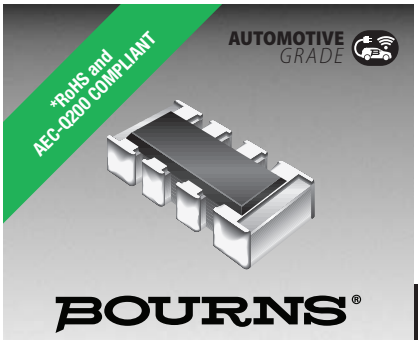


Features

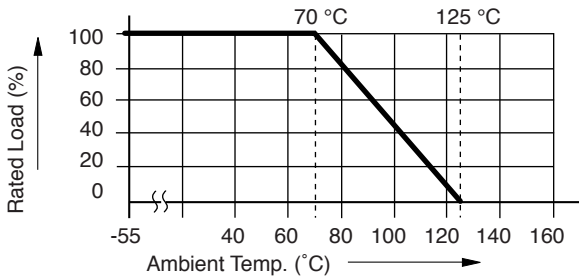
- RoHS compliant*
- Convex terminal style
- 4 isolated elements available
- Resistance tolerance: 1 % and 5 %
- Resistance range: 3 Ω to 1 MΩ and zero jumper
- AEC-Q200 compliant

CAY16A-LF Series – Thick Film Chip Arrays

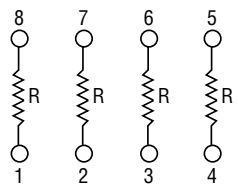
Electrical Characteristics

Characteristic	CAY16A-xxx4LF
Number of Elements (Isolated)	4
Power Rating @ 70 °C per Resistor	63 mW
Resistor Tolerance	1 %, 5 %
Resistor Range & TCR (E24 + E96 for 1 %, E24 for 5 %) plus zero ohm jumper	1 %, 10 ~ 1 MΩ ... 200 ppm/°C 5 %, 10 ~ 1 MΩ ... 200 ppm/°C 5 %, 3 ~ 9, 1 Ω ... 400 ppm/°C
Maximum Overload Voltage	100 V
Maximum Working Voltage	50 V
Operating Temperature Range	-55 to +125 °C
Rating Temperature	+70 °C
Packaging	5,000 pieces per reel
Zero Ohm Jumper Current Rating / Max. Resistance (per element)	1 A / 2.5 A / 50 mΩ max.

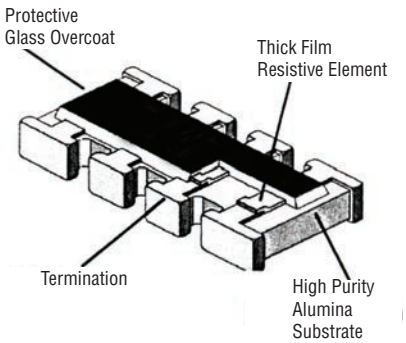
Derating Curve



Isolated Circuit



Construction

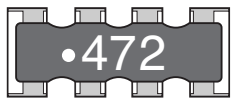


Additional Information

Click these links for more information:

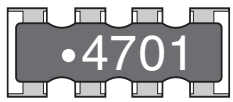
PRODUCT | TECHNICAL LIBRARY | INVENTORY | SAMPLES | CONTACT

Typical Part Marking



±5 % (E24)
3 digits; first two digits are significant, third digit is the number of zeroes to follow.

EX: 472 = 4700 Ω = 4.7K Ω
000 = 0 Ω



±1 % (E96)
4 digits; first three digits are significant, fourth digit is the number of zeroes to follow.

EX: 4701 = 4700 Ω = 4.7K Ω

Storage Conditions

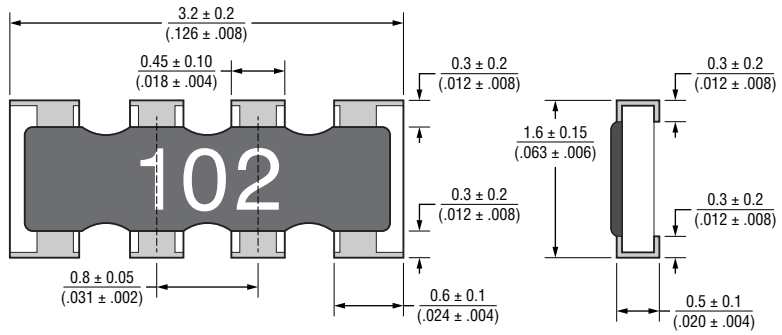
5~35 °C, 40~75 % RH, 2 years

WARNING Cancer and Reproductive Harm
www.P65Warnings.ca.gov

*RoHS Directive 2015/863, Mar 31, 2015 and Annex.
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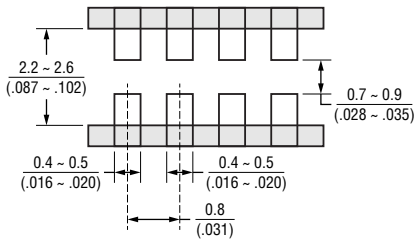
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Product Dimensions



DIMENSIONS: MM / (INCHES)

Recommended Pad Layout



DIMENSIONS: MM / (INCHES)

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How to Order

CA Y 16 A - 103 J 4 LF

Series
CA = Chip Array

Type
Y = Convex

Model
16 = 06 Package Width

Feature
A = AEC-Q200 Compliant

Resistance Code
For 1 % Tolerance: (E96)
<100 Ω – "R" represents decimal point (example 24R3 = 24.3 Ω)
≥100 Ω – First three digits are significant, fourth digit represents number of zeroes to follow (example: 8252 = 82.5k Ω).
For 5 % Tolerance: (E24)
<10 Ω – "R" represents decimal point (example 4R7 = 4.7 Ω)
≥10 Ω – First two digits are significant, third digit represents the number of zeroes to follow (example: 474 = 470k Ω)
000 = Zero Ohm Jumper.

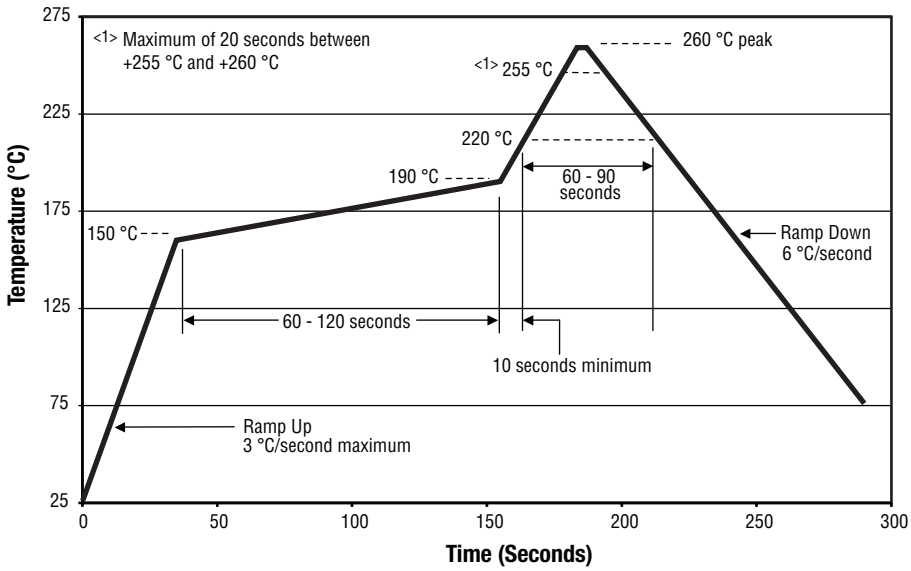
Resistance Tolerance
F = ±1 % J = ±5 %

Number of Resistors
4 = 4 Resistors

Special Characteristics
LF = Tin-plated Terminations (RoHS Compliant)

For Standard Values Used in Capacitors, Inductors, and Resistors, click here.

Soldering Profile



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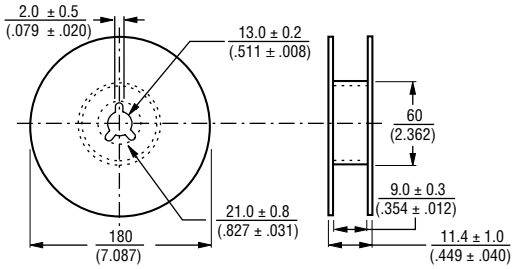
Performance Characteristics (AEC-Q200)

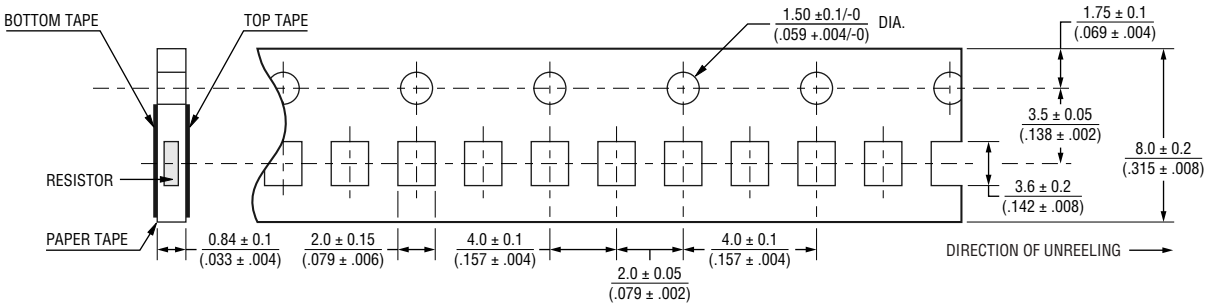
Test	Procedure	Test Limits
Short Time Overload	2.5 X rated voltage for 5 sec.	± (2.0 % + 0.1 Ω) 0 Ω : 50 mΩ or less
High Temperature Exposure (Storage)	1000 hrs. @ T=125 °C. Unpowered. Measurement at 24 ±2 hours after test conclusion.	1 %: ± (1.0 % + 0.05 Ω) 5 %: ± (2.0 % + 0.1 Ω) 0 Ω: 50 mΩ or less
Temperature Cycling	1000 Cycles (-55 °C to +125 °C) Measurement at 24 ±4 hours after test conclusion. 30 min. maximum dwell time at each temperature extreme. 1 min. maximum transition time.	± (2.0 % + 0.1 Ω) 0 Ω : 50 mΩ or less
Moisture Resistance	T=24 hours / Cycle,10 Cycles. Notes: Steps 7a & 7b not required. Unpowered.	± (2.0 % + 0.1 Ω) 0 Ω : 50 mΩ or less
Biased Humidity	1000 hours 85 °C / 85 % RH. Note: Specified conditions: 10 % of operating power (not exceeding max. working voltage). Measurement at 24 ±2 hours after test conclusion.	± (3 % + 0.1 Ω) 0 Ω: 100 mΩ or less
Operational Life	1000 hours T_A=125 °C at 35 % rated power. Measurement at 24 ±4 hours after test conclusion.	± (3 % + 0.1 Ω) 0 Ω: 100 mΩ or less
Mechanical Shock	Wave Form: Tolerance for half sine shock pulse. Peak value is 100 g's. Normal duration (D) is 6 ms.	± (1 % + 0.1 Ω) 0 Ω: 50 mΩ or less
Vibration	5 g's for 20 min., 12 cycles each of 3 orientations. Note: Test from 10-2000 Hz.	± (1 % + 0.1 Ω) 0 Ω: 50 mΩ or less
Resistance to Soldering Heat	Condition B: Immerse the specimens in an eutectic solder at 260 ±5 °C for 10 ±1 s.	± (1 % + 0.1 Ω) 0 Ω: 50 mΩ or less
Thermal Shock	-55 °C / +155 °C. Note: Number of cycles required: 300, Maximum transfer time: 20 seconds, dwell time: 15 minutes. Air to Air.	± (1 % + 0.1 Ω) 0 Ω: 50 mΩ or less
ESD	Verify the voltage setting at 500 V	± (2 % + 0.1 Ω)
Solderability	Method B, aging 4 hours at 155 °C dry heat Lead-free solder bath at 235 ±3 °C Dipping time: 3 ±0.5 seconds	> 95 % area covered with tin
Flammability	V-0 or V-1 are acceptable. Electrical test not required.	V-0 or V-1
Board Flex (Bending)	The duration of the applied forces shall be 60 (+ 5) sec.	± (1 % + 0.1 Ω) 0 Ω: 50 mΩ or less
Terminal Strength (SMD)	Force of 1.8 kg for 60 seconds.	± (1 % + 0.05 Ω) 0 Ω: 50 mΩ or less

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Packaging Dimensions





DIMENSIONS: MM / (INCHES)

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