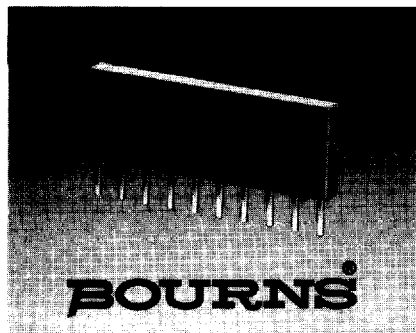




## THICK FILM MOLDED SIPs, HIGH PROFILE 4, 6, 8, AND 10 PIN

- High profile offers increased power handling
- Compatible with automatic insertion equipment
- High temperature lead attachment to withstand reflow temperatures up to 260°C
- Copper leads for excellent heat dissipation

### Model 4300H Series

® Resistor Networks

FOR SCHEMATICS, SEE FOLLOWING PAGE.

#### Electrical Characteristics

##### Resistance Range

..... 10 ohms to 10 megohms  
Maximum Operating Voltage ..... 100V  
Temperature Coefficient of Resistance  
50Ω to 2.2 MΩ ..... ±100ppm/°C  
below 50Ω ..... ±250ppm/°C  
above 2.2 MΩ ..... ±250ppm/°C

##### Voltage Coefficient

..... ±100ppm/V typical  
1K ohms

TCR Tracking ..... 50ppm/°C  
maximum; equal values

Resistor Tolerance ..... See circuits  
Operating Temperature

..... -55°C to +125°C

#### Environmental Characteristics

TESTS PER MIL-R-83401 ..... ΔR MAX.

Short Time Overload ..... ±0.25%

Load Life ..... ±1.00%

Mechanical Shock ..... ±0.25%

Moisture Resistance ..... ±0.50%

Resistance to Soldering Heat

..... ±0.25%

Terminal Strength ..... ±0.25%

Thermal Shock ..... ±0.25%

Vibration ..... ±0.25%

Insulation Resistance

..... 10,000 megohms minimum

Dielectric Withstanding Voltage

..... 200 VRMS

Lead Solderability/Solvent Resistance

.. Meet requirements of MIL-R-83401

#### Physical Characteristics

Flammability ..... Conforms to UL94V-0

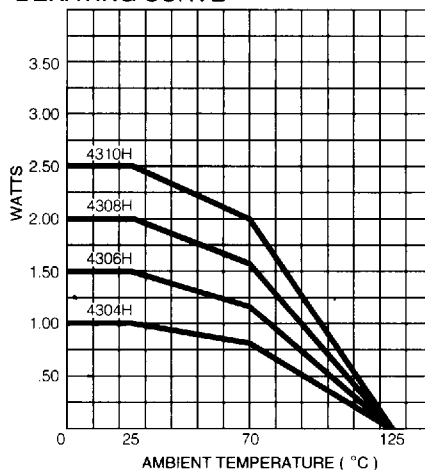
Lead Frame Material

Copper (OLIN 194) 90/10 plated

Body Material

..... Novolac epoxy

#### PACKAGE POWER TEMPERATURE DERATING CURVE



#### Package Power Rating at 70°C

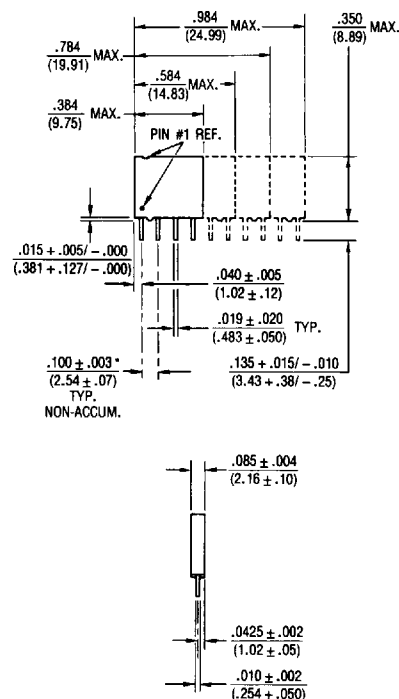
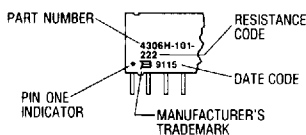
4304H ..... 0.80 watts  
4306H ..... 1.20 watts  
4308H ..... 1.60 watts  
4310H ..... 2.00 watts

#### Package Power Rating at 25°C

4304H ..... 1.00 watts  
4306H ..... 1.50 watts  
4308H ..... 2.00 watts  
4310H ..... 2.50 watts

#### TYPICAL PART MARKING

Represents total content. Layout may vary.



Governing dimensions are in inches. Dimensions in parentheses are metric (mm) and are approximate.

\*Terminal centerline to centerline measurements made at point of emergence of the lead from the body.

#### HOW TO ORDER

43 06 H - 101 - 222

Model  
(43 = Molded SIP)

Number of Pins

Physical Configuration  
(H = Thick Film High Profile)

Electrical Configuration  
• 101 = Bussed  
• 102 = Isolated  
• 104 = Dual Terminator

Resistance Code  
• First 2 digits are significant  
• Third digit represents the number of zeros to follow.

Consult factory for other available options.

- Superior package integrity
- Trifurcated Krimp-Joint™ lead attachment for product reliability and strength
- Laser marking on contrasting background for permanent identification
- Available in military grade

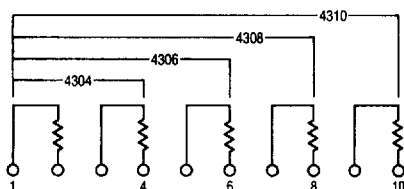
## Model 4300H Series

® Resistor Networks

FOR PRODUCT SPECIFICATIONS, SEE PRIOR PAGE.

### ISOLATED RESISTORS (102 CIRCUIT)

Model 4304H-102-RC (4 Pin)  
Model 4306H-102-RC (6 Pin)  
Model 4308H-102-RC (8 Pin)  
Model 4310H-102-RC (10 Pin)



These models incorporate 2, 3, 4, or 5 isolated thick-film resistors of equal value, each connected between two pins.

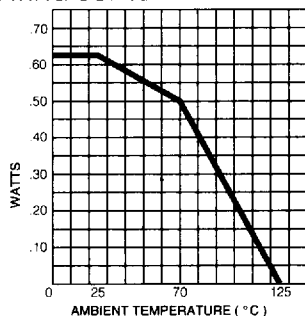
#### Resistance Tolerance

10 ohms to 49 ohms .....  $\pm 1$  ohm  
50 ohms to 5 megohms .....  $\pm 2\%$ \*  
Above 5 megohms .....  $\pm 5\%$

#### Power Rating per Resistor

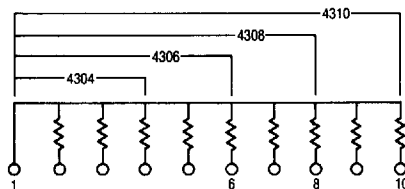
At 70°C ..... 0.50 watt  
At 25°C ..... 0.625 watt

#### POWER TEMPERATURE DERATING CURVE



### BUSSED RESISTORS (101 CIRCUIT)

Model 4304H-101-RC (4 Pin)  
Model 4306H-101-RC (6 Pin)  
Model 4308H-101-RC (8 Pin)  
Model 4310H-101-RC (10 Pin)



These models incorporate 3, 5, 7, or 9 thick-film resistors of equal value, each connected between a common bus (pin 1) and a separate pin.

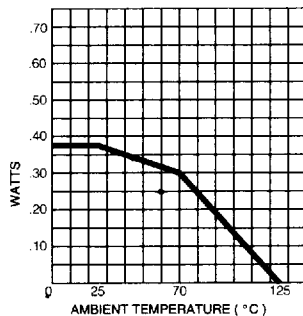
#### Resistance Tolerance

10 ohms to 49 ohms .....  $\pm 1$  ohm  
50 ohms to 5 megohms .....  $\pm 2\%$ \*  
Above 5 megohms .....  $\pm 5\%$

#### Power Rating per Resistor

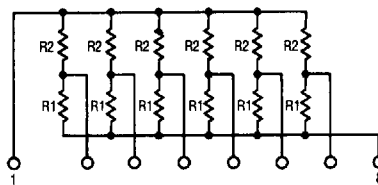
At 70°C ..... 0.30 watt  
At 25°C ..... 0.375 watt

#### POWER TEMPERATURE DERATING CURVE



### DUAL TERMINATOR (104 CIRCUIT)

Model 4304H-104-R1/R2  
Model 4306H-104-R1/R2  
Model 4308H-104-R1/R2 (shown)  
Model 4310H-104-R1/R2



4308H-104 (shown above) is an 8-pin configuration and terminates 6 lines. Pins 1 and 8 are common for ground and power, respectively. Twelve thick-film resistors are paired in series between the common lines (pins 1 and 8).

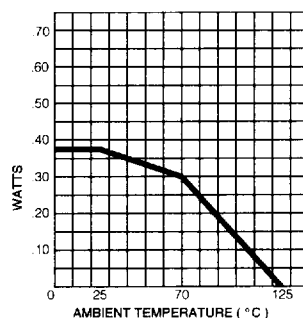
#### Resistance Tolerance

Below 100 ohms .....  $\pm 2$  ohms  
100 ohms to 5 megohms .....  $\pm 2\%$ \*  
Above 5 megohms .....  $\pm 5\%$

#### Power Rating per Resistor

At 70°C ..... 0.30 watt  
At 25°C ..... 0.375 watt

#### POWER TEMPERATURE DERATING CURVE



### RESISTANCE VALUES (101, 102 CIRCUITS)\*\*

| Ohms | Code | Ohms  | Code | Ohms   | Code | Ohms    | Code | Ohms      | Code |
|------|------|-------|------|--------|------|---------|------|-----------|------|
| 10   | 100  | 180   | 181  | 1,800  | 182  | 15,000  | 153  | 120,000   | 124  |
| 22   | 220  | 220   | 221  | 2,000  | 202  | 18,000  | 183  | 150,000   | 154  |
| 27   | 270  | 270   | 271  | 2,200  | 222  | 20,000  | 203  | 180,000   | 184  |
| 33   | 330  | 330   | 331  | 2,700  | 272  | 22,000  | 223  | 220,000   | 224  |
| 39   | 390  | 390   | 391  | 3,300  | 332  | 27,000  | 273  | 270,000   | 274  |
| 47   | 470  | 470   | 471  | 3,900  | 392  | 33,000  | 333  | 330,000   | 334  |
| 56   | 560  | 560   | 561  | 4,700  | 472  | 39,000  | 393  | 390,000   | 394  |
| 68   | 680  | 680   | 681  | 5,600  | 562  | 47,000  | 473  | 470,000   | 474  |
| 82   | 820  | 820   | 821  | 6,800  | 682  | 56,000  | 563  | 560,000   | 564  |
| 100  | 101  | 1,000 | 102  | 8,200  | 822  | 68,000  | 683  | 680,000   | 684  |
| 120  | 121  | 1,200 | 122  | 10,000 | 103  | 82,000  | 823  | 820,000   | 824  |
| 150  | 151  | 1,500 | 152  | 12,000 | 123  | 100,000 | 104  | 1,000,000 | 105  |

\*  $\pm 1\%$  Tolerance is available by adding suffix code "F" after the resistance code.

\*\*Non-standard values available, within resistance range.

### RESISTANCE VALUES (104 CIRCUIT)\*\*

| Resistance     |                |                |                |
|----------------|----------------|----------------|----------------|
| (Ohms)         |                | Code           |                |
| R <sub>1</sub> | R <sub>2</sub> | R <sub>1</sub> | R <sub>2</sub> |
| 160            | 240            | 161            | 241            |
| 180            | 390            | 181            | 391            |
| 220            | 270            | 221            | 271            |
| 220            | 330            | 221            | 331            |
| 330            | 390            | 331            | 391            |
| 330            | 470            | 331            | 471            |
| 3,000          | 6,200          | 302            | 622            |

Specifications are subject to change without notice.