

# THICK FILM SURFACE MOUNTED MEDIUM BODY (5.59MM) SOM PACKAGE / 14, 16, 18 AND 20 PINS

- Standard E.I.A. (SOGN-0002) package compatible with automatic placement equipment
- High temperature lead attachment to withstand reflow temperatures up to 260°C
- Tape and reel packaging standard (see page 94 for dimensions)

## Model 4800P Resistor Networks

### Electrical Characteristics

**Resistance Range**  
..... 10 ohms to 2.2 megohms  
**Maximum Operating Voltage** ..... 50V  
**Temperature Coefficient of Resistance**  
50Ω and above ..... ±100ppm/°C  
below 50Ω ..... ±250ppm/°C  
**Voltage Coefficient**  
For Values > 1K ohms  
..... ±100ppm/1K ohms

**TCR Tracking**  
..... 50ppm/°C max.; equal values  
**Operating Temperature**  
..... -55°C to +125°C

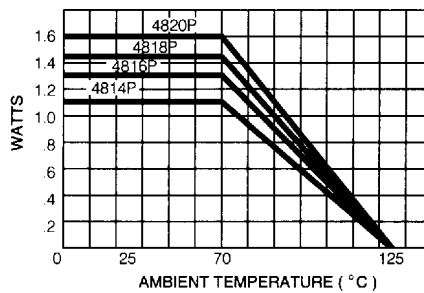
### Environmental Characteristics

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%  
**Thermal Shock** ..... ±0.25%  
**Insulation Resistance**  
..... 10,000 megohms min.  
**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) 60/40 solder dip  
**Body Material** ..... Novolac epoxy

### PACKAGE POWER TEMPERATURE DERATING CURVE

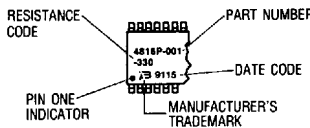


### Package Power Rating at 70°C

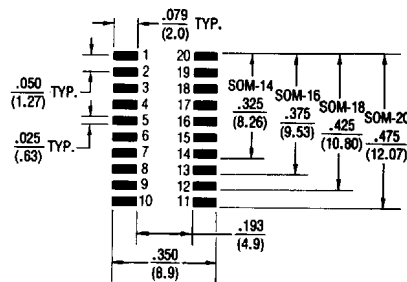
4814P	.....	1.12 watts
4816P	.....	1.28 watts
4818P	.....	1.44 watts
4820P	.....	1.60 watts

### TYPICAL PART MARKING

Represents total content. Layout may vary.

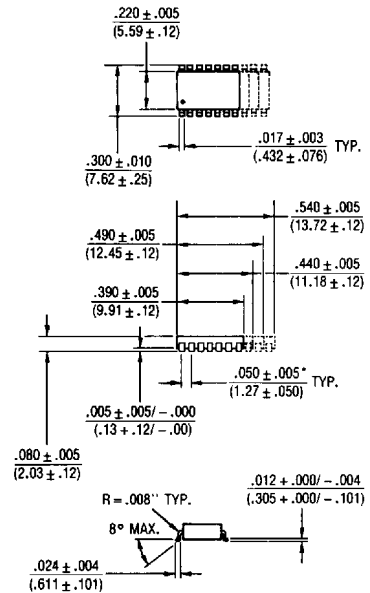


### RECOMMENDED LAND PATTERN



NOTE: Land pattern dimensions are based on design rules established by the Institute for Interconnecting and Packaging Electronic Circuits in IPC-SM-782.

### 4800P



Lead coplanarity .004 inch max. at mounting surface.

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

**48 16 P - 001 - 103**

Model \_\_\_\_\_  
(48 = SOM Pkg)

Number of Pins \_\_\_\_\_

Electrical Configuration \_\_\_\_\_  
•001/004 = Isolated\*  
•002 = Bussed\*  
•003 = Dual Terminator\*

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

\*For tube packaging, use T01, T02, T03 or T04. Consult factory for other available options.

Specifications are subject to change without notice.

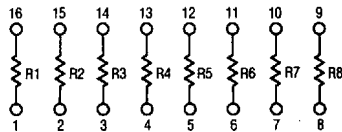
- For ordering guidelines, see page 94
- Superior package integrity to withstand moisture and contamination
- Laser marking on contrasting background for permanent identification
- Compliant leads to reduce solder joint fatiguing
- Copper leads for superior heat dissipation
- Standard electrical schematics: isolated, bussed, dual terminator
- Custom circuits are available

# Model 4800P

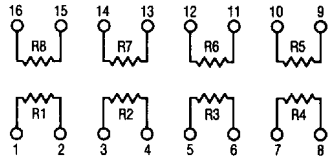
® Resistor Networks

## ISOLATED RESISTORS (001 and 004 CIRCUITS)

- Model 4814P-001
- Model 4816P-001 (Shown)
- Model 4818P-001
- Model 4820P-001



- Model 4816P-004 (Shown)
- Model 4820P-004



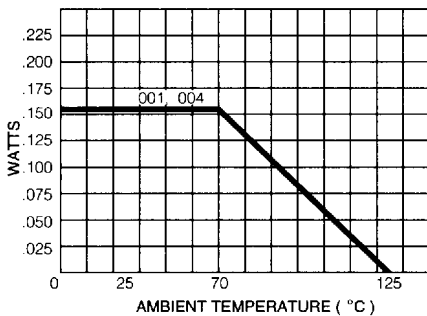
### Resistance Tolerance

10 ohms to 49 ohms ..... ±1 ohm  
50 ohms to 2.2 megohms ..... ±2%\*

### Power Rating per Resistor

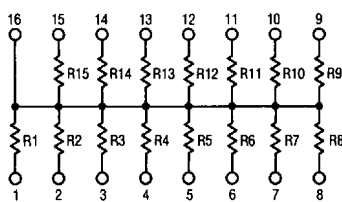
001 Circuit at 70°C ..... 0.160 watt  
004 Circuit at 70°C ..... 0.160 watt

### PACKAGE POWER TEMPERATURE DERATING CURVE



## BUSSED RESISTORS (002 CIRCUIT)

- Model 4814P-002
- Model 4816P-002 (Shown)
- Model 4818P-002
- Model 4820P-002



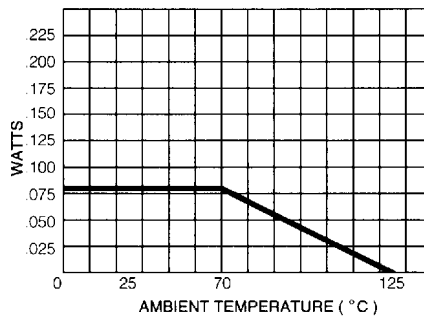
### Resistance Tolerance

10 ohms to 49 ohms ..... ±1 ohm  
50 ohms to 2.2 megohms ..... ±2%\*

### Power Rating per Resistor

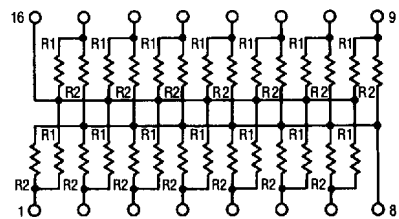
002 Circuit at 70°C ..... 0.080 watt

### PACKAGE POWER TEMPERATURE DERATING CURVE



## DUAL TERMINATOR (003 CIRCUIT)

- Model 4814P-003
- Model 4816P-003 (Shown)
- Model 4818P-003
- Model 4820P-003



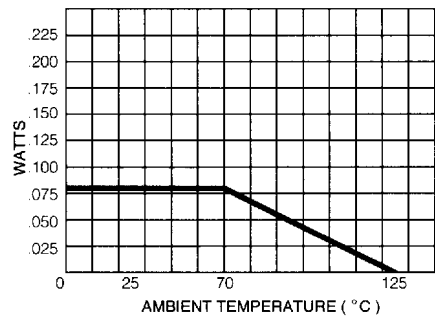
### Resistance Tolerance

Below 100 ohms ..... ±2 ohms  
100 ohms to 2.2 megohms ..... ±2%\*

### Power Rating per Resistor

003 Circuit at 70°C ..... 0.080 watt

### PACKAGE POWER TEMPERATURE DERATING CURVE



### RESISTANCE VALUES (001, 004, and 002 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

### RESISTANCE VALUES (003 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.

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

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