

MODELS 627, 628

.220" Small Outline

Dual-In-Line

Thick Film

Surface Mount

Resistor Networks



ELECTRICAL

| | |
|---|--|
| Standard Resistance Range, Ohms | 10 to 1Meg (Plus "0 Ohm" Jumper) |
| Standard Resistance Tolerance, at 25°C | ±2% (<33 Ohms = ±10hm) (Optional: F Tol. = ±1%) |
| Operating Temperature Range | -55°C to +125°C |
| Temperature Coefficient of Resistance | ±100ppm/°C (<100 Ohms = ±250ppm/°C) |
| Temperature Coefficient of Resistance, Tracking | ±50ppm/°C |
| Maximum Operating Voltage | 50Vdc or √PR |
| Insulation Resistance | ≥10,000 Megohms |

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ENVIRONMENTAL

| | |
|--|-------------------------|
| Thermal Shock plus Power Conditioning | ΔR 0.70% |
| Short Time Overload | ΔR 0.25% |
| Moisture Resistance | ΔR 0.50% |
| Mechanical Shock | ΔR 0.25% |
| Vibration | ΔR 0.25% |
| Low Temperature Operation | ΔR 0.25% |
| High Temperature Exposure | ΔR 0.50% |
| Load Life, 2,000 Hours (≤330hms = ±0.5 Ohm) | ΔR 0.50% |
| Resistance to Solder Heat (Total immersion in solder at 280°C for 10 sec.) | ΔR 0.25% |
| Dielectric Withstanding Voltage | 200V for 1 minute |
| Temperature Exposure, Maximum | 215°C for 3 minutes |
| Marking Permanency | MIL-STD-202, Method 215 |
| Lead Solderability | MIL-STD-202, Method 208 |
| Flammability | UL-94V-0 Rated |
| Storage Temperature Range | -55°C to +150°C |

Specifications subject to change without notice.

MECHANICAL

| | |
|--------------------|---------------------------------------|
| Lead Material | Copper Alloy, 60/40 Tin-Lead (Dipped) |
| Lead Configuration | Gull Wing |
| Lead Coplanarity | ±0.002 in. (0.051mm) |
| Substrate Material | Alumina |
| Resistor Material | Cermet |
| Body Material | Epoxy |

STANDARD RESISTANCE VALUES, OHMS

| A Circuit (Isolated Resistors) | | | | | |
|--|------------|-------------|------------|-------------|------------|
| Bold type represents stock standard values for 'A' circuit | | | | | |
| Ohms | Code | Ohms | Code | Ohms | Code |
| 22 | 220 | 1.2K | 122 | 39K | 393 |
| 33 | 330 | 1.5K | 152 | 47K | 473 |
| 39 | 390 | 1.8K | 182 | 56K | 563 |
| 47 | 470 | 2K | 202 | 68K | 683 |
| 56 | 560 | 2.2K | 222 | 82K | 823 |
| 68 | 680 | 2.7K | 272 | 100K | 104 |
| 82 | 820 | 3.3K | 332 | 120K | 124 |
| 100 | 101 | 3.9K | 392 | 150K | 154 |
| 120 | 121 | 4.7K | 472 | 180K | 184 |
| 150 | 151 | 5.6K | 562 | 220K | 224 |
| 180 | 181 | 6.8K | 682 | 270K | 274 |
| 220 | 221 | 8.2K | 822 | 330K | 334 |
| 270 | 271 | 10K | 103 | 390K | 394 |
| 330 | 331 | 12K | 123 | 470K | 474 |
| 390 | 391 | 15K | 153 | 560K | 564 |
| 470 | 471 | 18K | 183 | 680K | 684 |
| 560 | 561 | 20K | 203 | 820K | 824 |
| 680 | 681 | 22K | 223 | 1Meg | 105 |
| 820 | 821 | 27K | 273 | | |
| 1K | 102 | 33K | 333 | | |

| B Circuit (Bussed Resistors) | | | | | |
|--|------------|-------------|------------|-------------|------------|
| Bold type represents stock standard values for 'B' circuit | | | | | |
| Ohms | Code | Ohms | Code | Ohms | Code |
| 22 | 220 | 1.2K | 122 | 39K | 393 |
| 33 | 330 | 1.5K | 152 | 47K | 473 |
| 39 | 390 | 1.8K | 182 | 56K | 563 |
| 47 | 470 | 2K | 202 | 68K | 683 |
| 56 | 560 | 2.2K | 222 | 82K | 823 |
| 68 | 680 | 2.7K | 272 | 100K | 104 |
| 82 | 820 | 3.3K | 332 | 120K | 124 |
| 100 | 101 | 3.9K | 392 | 150K | 154 |
| 120 | 121 | 4.7K | 472 | 180K | 184 |
| 150 | 151 | 5.6K | 562 | 220K | 224 |
| 180 | 181 | 6.8K | 682 | 270K | 274 |
| 220 | 221 | 8.2K | 822 | 330K | 334 |
| 270 | 271 | 10K | 103 | 390K | 394 |
| 330 | 331 | 12K | 123 | 470K | 474 |
| 390 | 391 | 15K | 153 | 560K | 564 |
| 470 | 471 | 18K | 183 | 680K | 684 |
| 560 | 561 | 20K | 203 | 820K | 824 |
| 680 | 681 | 22K | 223 | 1Meg | 105 |
| 820 | 821 | 27K | 273 | | |
| 1K | 102 | 33K | 333 | | |

| J Circuit (Dual Terminators) | | | | | |
|------------------------------|--------------|---------|--------------|--------------|---------|
| Ohms (R1/R2) | Code (R1/R2) | Marking | Ohms (R1/R2) | Code (R1/R2) | Marking |
| 120/120 | 121/121 | 45 | 330/470 | 331/471 | 10 |
| 150/150 | 151/151 | 40 | 390/390 | 391/391 | 42 |
| 180/300 | 181/301 | 31 | 470/470 | 471/471 | 43 |
| 220/220 | 221/221 | 39 | 1K/3.3K | 102/332 | 35 |
| 220/330 | 221.331 | 08 | 3K/6.2K | 302/662 | 13 |
| 270/270 | 271/271 | 41 | 6.8K/22K | 682/223 | 29 |
| 330/390 | 331/391 | 09 | | | |

OUTLINE DIMENSIONS (Inch/mm)



Note: Maximum allowable mold excursion = 0.006"

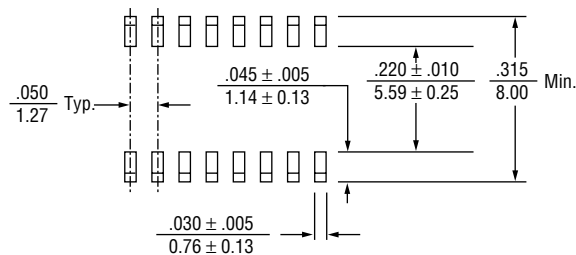
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SCHEMATICS



Note: Model 628: N = 16 Leads, Model 627: N = 14 Leads.

SOLDER PAD LAYOUT (Inch/mm)



TYPICAL PART MARKING



POWER DISSIPATION, WATTS AT 70°C

| Model | Package | — Resistor (Per Circuit) — | | |
|-------|---------|----------------------------|------|------|
| | | A | B | J |
| 627 | 1.28 | 0.32 | 0.16 | 0.16 |
| 628 | 1.28 | 0.32 | 0.16 | 0.16 |

PACKAGING

Standard: Tape & Reel

Conforms to requirements of EIA-481.

All units oriented with lead #1 to the left of direction of feed.

| | | | |
|-------|----------|---|------------------------------|
| Tape: | Width | = | 24mm |
| | Pocket | = | Embossed Plastic, Antistatic |
| | Pitch | = | 12mm |
| Reel: | Diameter | = | 13" (330mm) Maximum |
| | Capacity | = | 2,000 Units |

Option: Magazines

Conforms to EIA and JEDEC standards.

All units oriented with lead #1 to the same side.

| | | |
|--------------------|---|----------|
| Magazine: Capacity | = | 50 Units |
|--------------------|---|----------|

APPLICABLE DOCUMENTS

MIL-R-914 – Resistor Networks, Fixed, Film, Surface Mount Established Reliability General Specifications

MIL-STD-105 – Sampling Procedures and Tables for Inspection by Attributes

MIL-STD-202 – Test Methods for Electronics and Electrical Component Parts

EIA-481 – Carrier Taping of Surface Mount Components for Automatic Handling

EIA-PDP-100 – SOGN-0002 Outline Dimensions

ORDERING INFORMATION

