

# 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

## 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

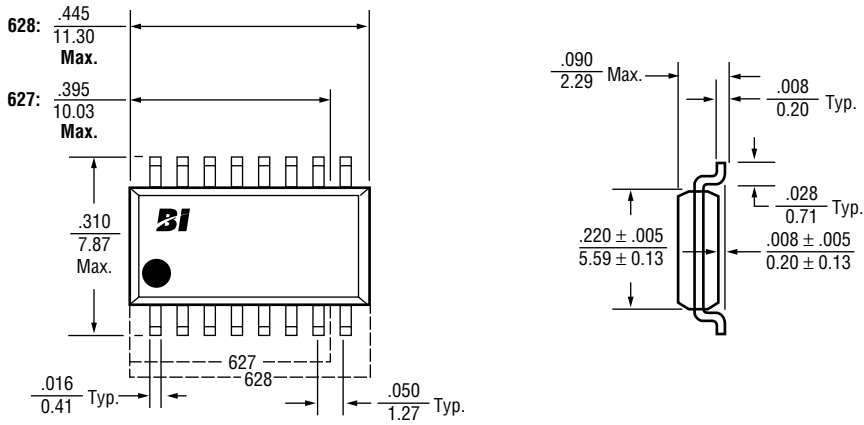
## STANDARD RESISTANCE VALUES, OHMS

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

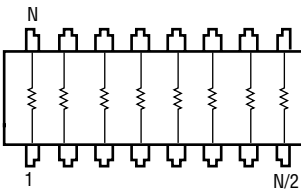
## OUTLINE DIMENSIONS (Inch/mm)



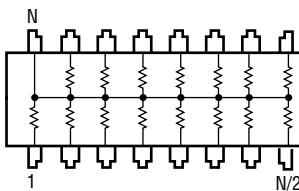
Note: Maximum allowable mold excursion = 0.006"

## SCHEMATICS

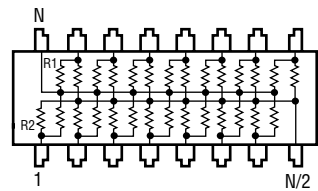
-3 Circuit  
Isolated Resistors



-1 Circuit  
Bussed Resistors

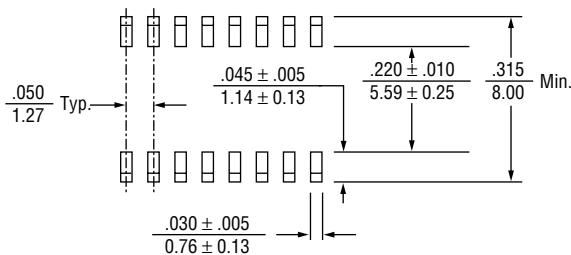


-5 Circuit  
Dual Terminator



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

## SOLDER PAD LAYOUT (Inch/mm)



## TYPICAL PART MARKING

**Part Number:**      **Part Marking:**

628A330

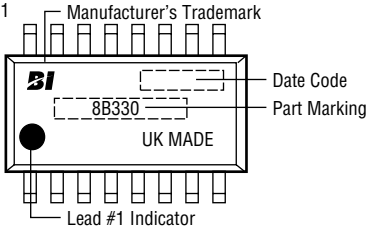
8A330

628B331

8B331

628J221/331

8J08



## 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
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## 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

