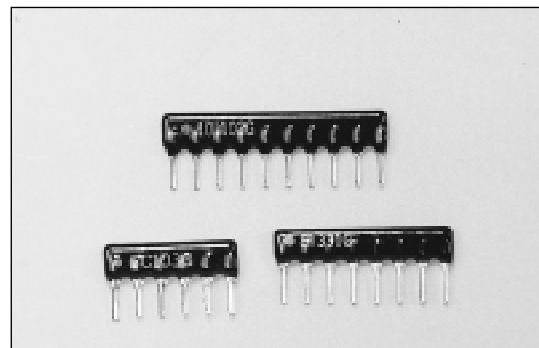


### SINGLE-IN-LINE "SIP" RESISTOR NETWORKS CONFORMAL COATED, LOW PROFILE

#### FEATURES

- CERMET THICK FILM CONSTRUCTION
- LOW PROFILE 5mm (.200" BODY HEIGHT)
- WIDE RANGE OF RESISTANCE VALUES
- HIGH RELIABILITY AT ECONOMICAL PRICING
- 4 PINS TO 13 PINS AVAILABLE
- 6 CIRCUIT TYPES

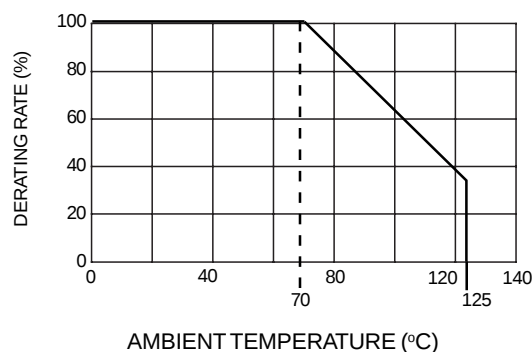


#### CHARACTERISTICS

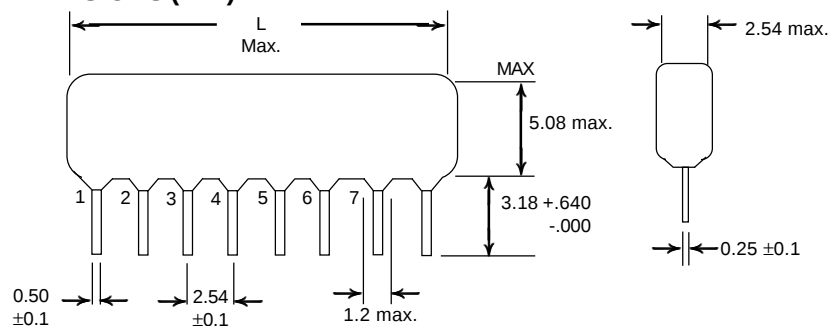
| Item                               | Specifications                                                                                                         |                                                 |
|------------------------------------|------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|
| Rated Power per Resistor at 70°C   | Common/Bussed:<br>Isolated: 125mW<br>Series:                                                                           | Ladder:<br>Voltage Divider: 75mW<br>Terminator: |
| Operating Temperature Range        | -55 ~ +125°C                                                                                                           |                                                 |
| Resistance Range                   | 10Ω ~ 3.3MegΩ (E24 Values)                                                                                             |                                                 |
| Resistance Temperature Coefficient | ±100 ppm/°C (10Ω~2MegΩ)<br>±200 ppm/°C (Values> 2MegΩ)                                                                 |                                                 |
| TC Tracking                        | ±50 ppm/°C                                                                                                             |                                                 |
| Max. Working Voltage               | 100 V or Rated Power x Resistance, whichever is less                                                                   |                                                 |
| Short Time Overload                | ±1%: JIS C-5202 5.5, 2.5 times max. working voltage for 5 seconds                                                      |                                                 |
| Load Life                          | ±3%: JIS C-5202 7.10, 1000 hrs. at 70°C with rated power applied, 1.5 hrs. on and 0.5 hr. off                          |                                                 |
| Mositure Load Life                 | ±3%: JIS C-5202 7.9, 500 hrs. at 40°C and 90 ~ 95% RH with rated power applied, 1.5 hrs. on and 0.5 hr. off            |                                                 |
| Temperature Cycle                  | ±1%: JIS C-5202 7.4, 5 Cycles of 30 minutes at -25°C, 15 minutes at +25°C, 30 minutes at +70°C and 15 minutes at +25°C |                                                 |
| Soldering Heat Resistance          | ±1%: JIS C-5202 6.4, 260±5°C for 10±1 seconds, 3mm from the body                                                       |                                                 |
| Vibration                          | ±1%: 12hrs. at max. 20Gs between 10 to 2kHz                                                                            |                                                 |
| Insulation Resistance              | 10,000 mW min. at 100v                                                                                                 |                                                 |
| Solderability                      | Per MIL-R-83401                                                                                                        |                                                 |

#### POWER DERATING CURVE:

For resistors operating in ambient temperatures above 70°C, power rating should be derated in accordance with the curve shown.



### DIMENSIONS (mm)



| No. of PINS | L max |
|-------------|-------|
| 4           | 10.2  |
| 5           | 12.7  |
| 6           | 15.3  |
| 7           | 17.8  |
| 8           | 20.4  |
| 9           | 22.9  |
| 10          | 25.4  |
| 11          | 28.0  |
| 12          | 30.5  |
| 13          | 33.1  |

### STANDARD CIRCUITS

Fig. 1: BUSSED/COMMON CIRCUIT

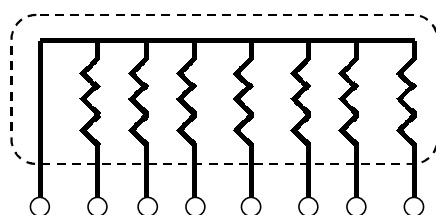


Fig. 2: ISOLATED/INDEPENDENT CIRCUIT

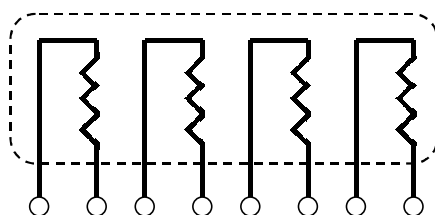


Fig. 3: SERIES CIRCUIT

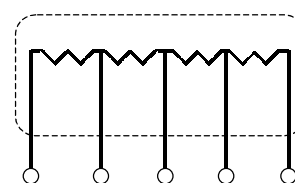


Fig. 4: LADDER CIRCUIT

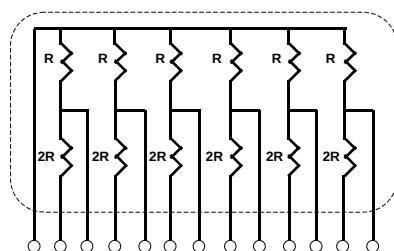


Fig. 5: VOLTAGE DIVIDER CIRCUIT

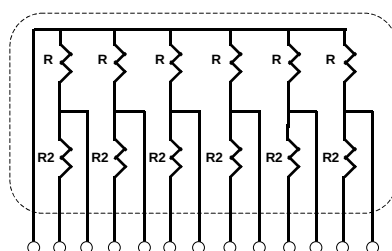
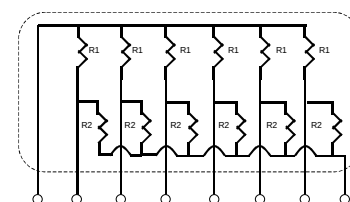
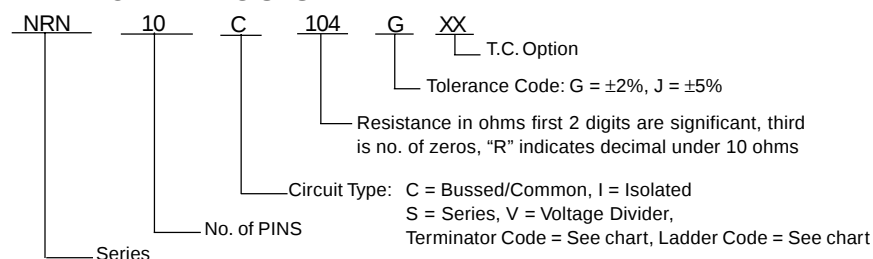


Fig. 6: TERMINATION CIRCUIT



### PART NUMBERING SYSTEM



#### Part Marking Includes:

- 1.) Number of PINS.
- 2.) Circuit Type: "1" or "C" = Common/Bussed  
"2" or "I" = Isolated
- 3.) Resistance Value (in ohms).
- 4.) Resistance Tolerance: "G" =  $\pm 2\%$   
"J" =  $\pm 5\%$

| Ladder Code | R/2R      |
|-------------|-----------|
| LA          | 10K/20K   |
| LB          | 25K/50K   |
| LC          | 50K/100K  |
| LD          | 100K/200K |
| LS          | Special   |

| Terminator Code | R1/R2     |
|-----------------|-----------|
| TA              | 160/240   |
| TB              | 180/390   |
| TC              | 220/270   |
| TD              | 220/330   |
| TE              | 330/390   |
| TF              | 330/470   |
| TG              | 330/680   |
| TH              | 1.5K/3.3K |
| TI              | 3.0K/6.2K |
| TS              | Special   |

