

**PRODUCT CHANGE NOTICE**

**END-OF-LIFE / P R O D U C T D I S C O N T I N U A T I O N N O T I C E**

PCN LINK: <http://www.niccomp.com/pcn.html-ssi>

**REF: NRN** series of leaded resistor networks (SIP)



**PRODUCT SERIES: NRN**

**NOTICE DATE: July 10, 2006**

**LAST ORDER DATE: August 01, 2006**

**SUB: Above referenced product series is discontinued.**

**REASON FOR DISCONTINUATION:**

Reduced requirements from market. Transition by users to SMT version (NRSN series)

**REPLACEMENT - ALTERNATE:**

Replace with SMT format version <http://www.niccomp.com/Catalog/NRSN.pdf>



+ Contact NIC for assistance in migrating to alternate part numbers [ <http://www.niccomp.com/contact.html-ssi> ]

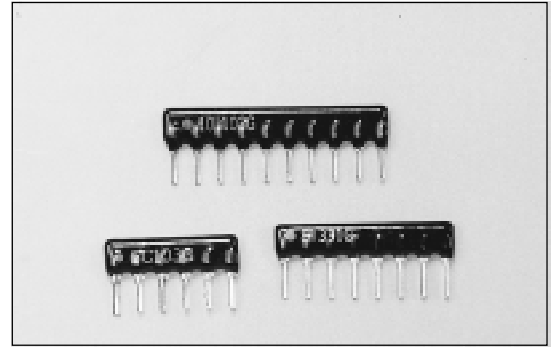
PREPARED BY:

Jim Wright, TPMG Dept, NIC Components Corp.

## 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

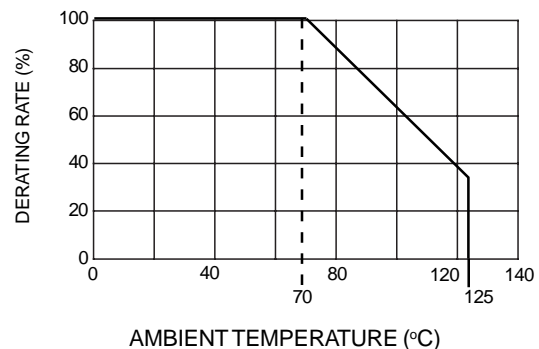


### CHARACTERISTICS

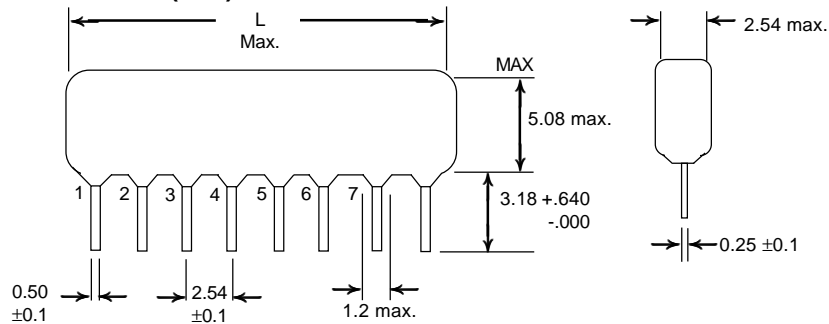
Item	Specifications	
Rated Power per Resistor at 70°C	Common/Bussed: Isolated: 125mW Series:	Ladder: Voltage Divider: 75mW Terminator:
Operating Temperature Range	-55 ~ +125°C	
Resistance Range	10Ω ~ 3.3MegΩ (E24 Values)	
Resistance Temperature Coefficient	±100 ppm/°C (10Ω~2MegΩ) ±200 ppm/°C (Values > 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

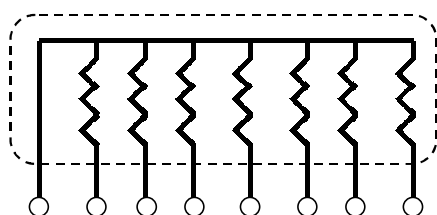


Fig. 2: ISOLATED/INDEPENDENT CIRCUIT

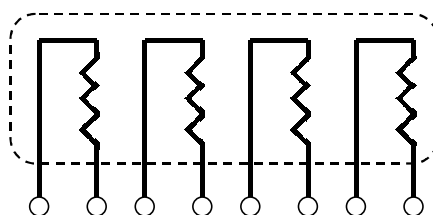


Fig. 3: SERIES CIRCUIT

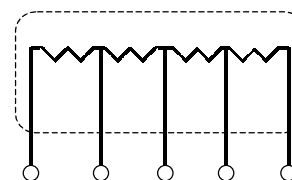


Fig. 4: LADDER CIRCUIT

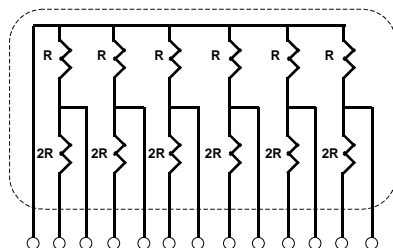


Fig. 5: VOLTAGE DIVIDER CIRCUIT

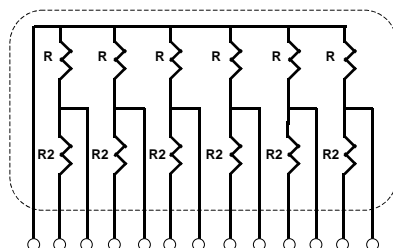
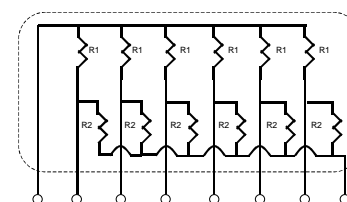
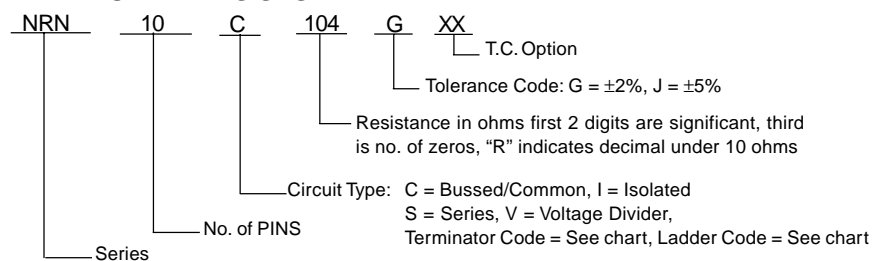


Fig. 6: TERMINATION CIRCUIT



## 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" = ±2%  
"J" = ±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

