November 9, 2010
SUB: NIC Components PCN & EOL Notifications

RE: EOL Notification

Product Type: Axial Carbon Film Resistors
NIC Series: NCF Series

THE FOLLOWING IS NOTICE THAT THE NCF SERIES IS BEING DISCONTINUED.

Last Time Buy Date: 11/20/2010
Last Time Ship Date: 12/31/2010

REASON FOR TERMINATION: LOW DEMAND

See table 1 for affected NIC part numbers*:

For alternatives NIC suggests the use of the **Resistor QuickBUILDER** (http://www.niccomp.com/products/qb_resistors.asp) to best find an alternative SMT or other Leaded Resistor

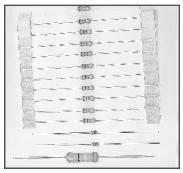
Discontinued Part Numbers
All part numbers with the prefix NCF25RJ
All part numbers with the prefix NCF25J
All part numbers with the prefix NCF50J
All part numbers with the prefix NCF50RJ
All part numbers with the prefix NCF100J
All part numbers with the prefix NCF200J

*Note: EOL includes all optional tolerances, temperature coefficients and packaging styles.

Follow NIC PCN alerts to get email notifications of EOL and PCN announcements at www.niccomp.com/pcn

Carbon Film Resistors

NCF Series



FEATURES

- ECONOMICALLY PRICED FOR COMMERCIAL AND INDUSTRIAL APPLICATIONS
- WIDE SELECTION OF POWER RATINGS AND RESISTANCE VALUES
- EIA COLOR CODING RESISTANT TO INDUSTRIAL SOLVENTS
- AVAILABLE ON TAPE AND REEL FOR AUTOMATIC INSERTION AND BULK PACK FOR SMALLER PRODUCTION RUNS
- NEW REDUCED SIZES AT HIGHER POWER RATINGS
- ±5% TOLERANCE STANDARD

RoHS Compliant

includes all homogeneous materials

*See Part Number System for Details

STANDARD TYPES, RATINGS AND AVAILABILITY

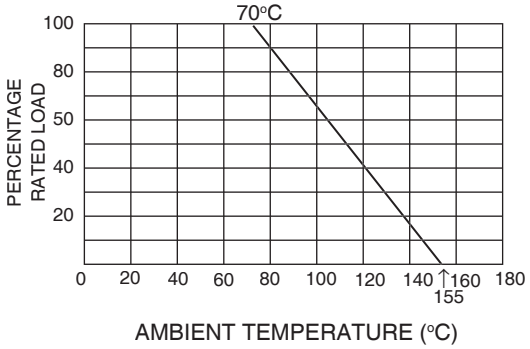
Type		NCF25R	NCF25	NCF50	NCF50R	NCF100	NCF200
Power Rating at 70°C		0.25W	0.25W	0.50W	0.50W	1.0W	2.0W
Max. Working Voltage at 70°C		250V	250V	350V	350V	500V	750V
Max. Overload Voltage at 70°C		500V	500V	700V	700V	1000V	1500V
Resistance Range	±5% (J) Tol.	1.0Ω~10MegΩ	0.5Ω~10MegΩ	1.0Ω~10MegΩ	1.0Ω~10MegΩ	1.0Ω~10MegΩ	1.0Ω~10MegΩ
Resistance Value Availability		E-24	E-24	E-24	E-24	E-24	E-24

PERFORMANCE CHARACTERISTICS

Requirements		Performance		Test Method & Conditions	
Operating Temperature Range		-55 ~ +155°C (derated above +70°C - see chart)		JIS C5202	MIL-R-10509F
Temperature Coefficient (ppm/°C)	(ppm/°C)	0.25W & Over	NCF25R	5.2 1- to = 80°C	4.6.12
	0 ~ -450	≤100KΩ	≤22KΩ		
	0 ~ -700	110KΩ ~ 1megΩ	24KΩ ~ 470KΩ		
	0 ~ -1000	1.1megΩ ~ 2.2megΩ	510KΩ ~ 2.2megΩ		
	0 ~ -1300	2.4megΩ ~ 10megΩ	2.2megΩ ~ 10megΩ		
Noise (μV/V)	(μV/V)	(NCF25R)	0.25W & Over	JIS C5202 5.9 Method II	
	0.1	-	0.5Ω ~ 10KΩ		
	0.3	1.0Ω ~ 10KΩ	11Ω ~ 91KΩ		
	0.5	11Ω ~ 91KΩ	100KΩ ~ 1megΩ		
	1.0	100KΩ ~ 10megΩ	1.1megΩ ~ 10megΩ		
Short Time Overload		ΔR ≤ ±(1%+0.05Ω)		5.5 Cond. A	4.6.6
Temperature Cycling		ΔR ≤ ±(0.5%+0.05Ω)		7.4-55°C/+85°C	4.6.4
Soldering Effect		ΔR ≤ ±(1%+0.05Ω)		6.4 350°C 3 sec.	4.6.10
Vibration		ΔR ≤ ±(0.5%+0.05Ω)		6.3 Cond. A	4.6.16
Moisture Resistance	R > 100K	ΔR ≤ ±5%		7.9 40°C 90-95%RH 1000hrs	4.6.11
	R ≤ 100K	ΔR ≤ ± (3%+0.05Ω)			
Load Life	R > 100K	ΔR ≤ ± 3%		7.10	4.6.13
	R ≤ 100k	ΔR ≤ ±(3%+0.05Ω)		70°C 1000hrs	

* Maximum allowable continuous voltage (Vdc or rms) for all resistors is the lower of the two values: "MAXIMUM WORKING VOLTAGE" as specified, or $\sqrt{\text{Power rating (WATTS x Resistance (OHMS)}}$

Derating Curve

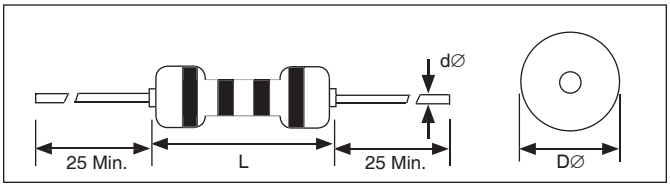


Carbon Film Resistors

NCF Series

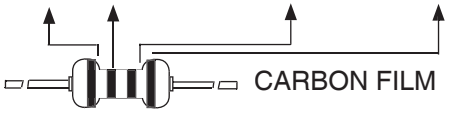
DIMENSIONS (mm)

Type	Dϕ	L	dϕ ± 0.05
NCF25R	1.8 ± 0.2	3.3 ± 0.4	0.45
NCF25	2.5 ± 0.5	6.3 ± 0.5	0.56
NCF50	3.5 ± 0.5	9.0 ± 0.5	0.65
NCF50R	2.3 ± 0.5	6.5 ± 0.5	0.56
NCF100	4.5 ± 0.5	11.0 ± 0.5	0.80
NCF200	5.5 ± 0.5	15.0 ± 0.5	0.80



COLOR CODING

Color	Significant Figure			Multiplier	Tolerance
	1st	2nd	3rd		
Black	0	0	0	1	-
Brown	1	1	1	10	F (±1%)
Red	2	2	2	100	G (±2%)
Orange	3	3	3	1,000	-
Yellow	4	4	4	10,000	-
Green	5	5	5	100,00	D ±0.5%)
Blue	6	6	6	1,000,000	C (±0.25%)
Violet	7	7	7	10,000,000	B (±0.1%)
Grey	8	8	8	-	-
White	9	9	9	-	-
Gold	-	-	-	0.1	J (±5%)
Silver	-	-	-	0.01	K (±10%)



SIGNIFICANT VALUES OF NOMINAL RESISTANCE E-24 5% (J)

1.0	2.2	4.7
1.1	2.4	5.1
1.2	2.7	5.6
1.3	3.0	6.2
1.5	3.3	6.8
1.6	3.6	7.5
1.8	3.9	8.2
2.0	4.3	9.1

PART NUMBER SYSTEM

NCF 25 J 103 TR F

- F — RoHS compliant parts
- TR = Tape and Reel
- 103 — Resistance Code: First 2 digits are significant, 3rd digit is multiplier, "R" indicates decimal on values below 10 OHMS
- J — Tolerance Code: G = ±2% (Opt.), J = ±5% STD.
- 25 — Power Rating (Wattage Code): 25 = .25W, 25R = .25W, 100 = 1 WATT, 50 = .50W, 50R = .50W, 200 = 2WATT
- NCF — Series

PACKAGING & REEL QUANTITIES

Tape and Reel - 5K NCF25R, 25 and 50R
2.5K NCF50
2K NCF100
1K for NCF200

Zero-Ohm Resistors

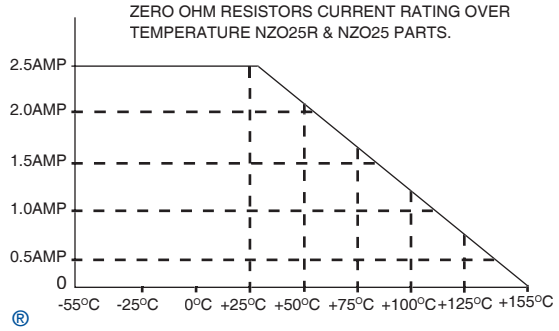
NZO Series

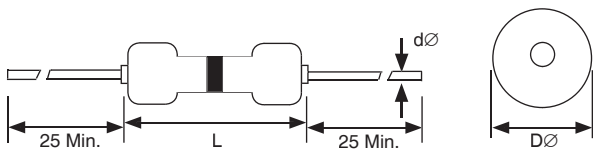
FEATURES

- STANDARD 1/8 WATT AND 1/4 WATT SIZES
- FOR JUMPERS OR CROSSOVERS ON PCB'S
- TAPE AND REEL FOR AUTOMATIC INSERTION
- SINGLE BLACK BAND INDICATES ZERO RESISTANCE

SPECIFICATIONS

OPERATING TEMPERATURE RANGE: –55°C to +155°C
RESISTANCE: 0.01 OHM or less
CURRENT RATING: 2.5 AMPS (–55°C to +70°C)
DERATED GRAPH BELOW





DIMENSIONS (mm)

Type	Dϕ	L	dϕ ± 0.05
NZO25R	1.8 ± 0.1	3.2 ± 0.2	0.5
NZO25	2.3 ± 0.2	6.5 ± 0.5	0.6

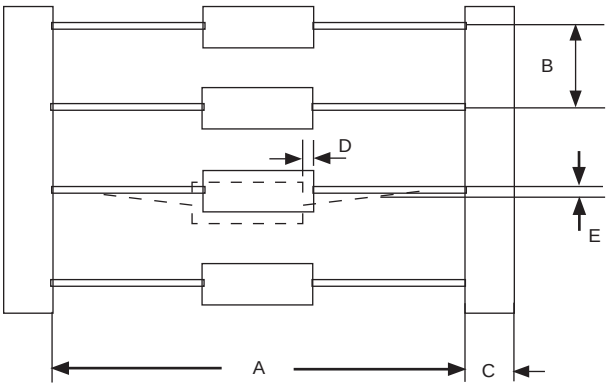
PART NUMBER SYSTEM

NZO 25 TR F

- F — RoHS compliant
- TR = Tape and Reel
- 25 — Size: 25R = 1/8W Size, 25 = 1/4W Size
- NZO — Series

Resistor Taping Specifications & Mechanical Characteristics

TAPE



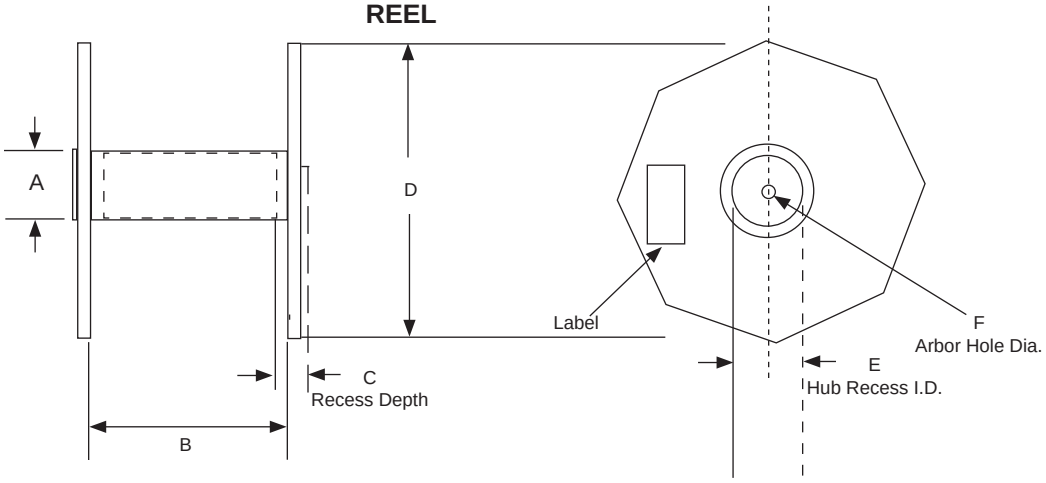
TAPE DIMENSIONS (mm)

Power Rating (Wattage)	A	B	C	D max.	E max.
1/8W	52 ± 1.0	5 ± 0.5	6 ± 0.3	0.6	1.2
1/4W	52 ± 1.0	5 ± 0.5	6 ± 0.3	0.6	1.2
1/2W	52 ± 1.0	5 ± 0.5	6 ± 0.3	0.6	1.2
1W	52.4 ± 1.5 63.5 ± 1.5	5 ± 0.6	6 ± 0.3	0.6	1.2
2W	52.4 ± 1.5 63.5 ± 1.5	5 ± 0.6 10 ± 1.0	6 ± 0.3	0.6	1.2

REEL DIMENSIONS (mm)

Power Rating	A max.	B	C ref.	D max.	E max	F ± 1.0
1/8W ~ 2W	60	40 ~ 100	16	312	53	15
3W		70 ± 10				14.5

REEL



MECHANICAL CHARACTERISTICS

LEAD PULL TEST

The lead wire shall withstand steady pull of the following weight axially to the lead wire for the minimum period of 10 seconds without any breakage or damage:

Nom. Lead Diameter	0.4ϕmm	0.5ϕmm	0.6ϕmm	0.7ϕmm	0.8ϕmm & over
Steady Weight	1.0Kgs.	1.0Kgs.	1.5Kgs	2.0Kgs.	2.5Kgs.

LEAD BEND TEST

The lead wire shall withstand minimum 4 bends of 90° rotation without any breakage or damage, when the resistor is placed in a vertical position and is applied with a weight of 0.5Kgs for 0.4 - 0.5omm or 1.1Kgs for 0.6omm and over lead wire.

SOLDERABILITY

The lead wire is immersed into 10% methanol or isopropyl alcohol of rosin by weight for a period of 2 ± 0.5 seconds. Then, it shall be dipped into molten solder melted at 230 ± 5°C for a period of 5 ± 1 seconds approximately 1.5mm from the body of the resistor. A new adhering coating of solder shall cover minimum 95% of the surface being dipped into solder.

RESISTANCE TO CLEANING SOLVENTS

Color coating or marking shall remain legible after cleaning by solvents such as isopropyl alcohol, trichloroethylene, freon® TF/TAX, xyliene etc., in form of liquid or gas.