

FEATURES

- **EXTENDED VALUE RANGE** (43MΩ ~ 4.7GΩ) & **PRECISION TOLERANCES**
- EIA STANDARD SIZING 0603, 0805 and 1206
- METAL GLAZED THICK FILM ON HIGH PURITY ALUMINA SUBSTRATE (CERMET) PROVIDES UNIFORM QUALITY AND HIGH RELIABILITY
- DOUBLE GLASS OVERCOAT ASSURES STRONG MECHANICAL CONSTRUCTION AND LONG LIFE, NICKEL BARRIER PREVENTS LEACHING
- ALL SIZES ARE AVAILABLE IN TAPE/REEL FOR AUTOMATIC MOUNTING
- BOTH FLOW SOLDER AND REFLOW SOLDERING ARE APPLICABLE



RoHS Compliant

includes all homogeneous materials

*See Part Number System for Details

SPECIFICATIONS

Type	EIA Size	Power Rating at 70°C	Max. *1 Working Voltage	Max. *2 Overload Voltage	Resistance Tolerance Code	Temperature Coefficient (ppm/°C)	Resistance Range (Ω)	Resistance Value	Operating Temperature Range
NRCE06	0603	1/16 (0.063) W	50V	100V	±10%(K), ±20%(M)	±500	43MΩ ~ 1GΩ	E-24	-55°C ~ +125°C
NRCE10	0805	1/10 (0.10) W	150V	300V	±10%(K), ±20%(M)	±500	43MΩ ~ 1GΩ		
						±1500	1.2GΩ ~ 4.7GΩ		
NRCE12	1206	1/8 (0.125) W	200V	400V	±10%(K), ±20%(M)	±500	43MΩ ~ 1GΩ		
						±1500	1.2GΩ ~ 4.7GΩ		

Note *1 - Maximum allowable continuous Working Voltage for all resistors is the lower of the two values:

“Maximum Working Voltage” as specified above

$$\sqrt{\text{Power rating (Watts)} \times \text{Resistance (Ohms)}}$$

(or)

Note *2 - Maximum allowable Overload voltage is two times the Maximum Working Voltage (see Note *1 above).

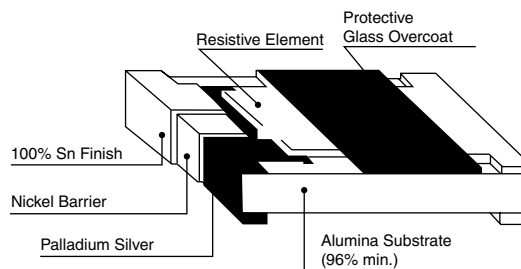
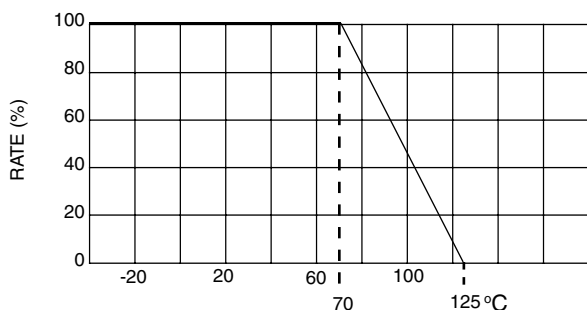
Please note, NIC's NRCE series products are capable of meeting the following specifications: JIS-C 5202, EIAJ RC-2690, EIA575, EIA PDP-100, MIL-R-5542D and UL94V-0.

PART NUMBER SYSTEM (E-24 VALUES)

NRCE12 K 436 TR E 10

- Optional 10,000 Piece Reel
- RoHS compliant
- Tape & Reel Packaging
- Resistance Code: First 2 figures are significant, 3rd digit is the multiplier, “R” indicates a decimal point.
- Tolerance Code: M=20%, K=10%
- Series and Size

Power Derating Curve: For operation above 70°C, power rating must be derated according to the following chart:



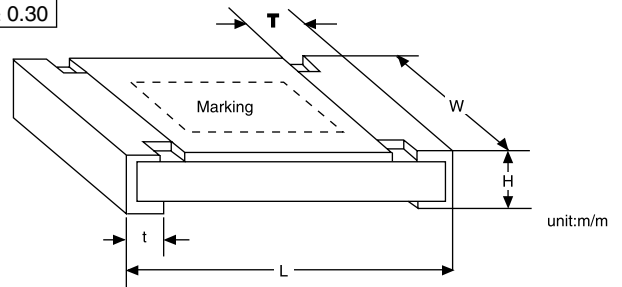
CONSTRUCTION

*Note: Lead Free terminations also available.
See part numbering system (page 2) for ordering instructions

DIMENSIONS (mm)

Type	EIA Size	L	W	H	T	t
NRCE06	0603	1.60 ± 0.15	0.80 ± 0.15	0.45 ± 0.10	0.30 ± 0.20	0.30 ± 0.20
NRCE10	0805	2.00 ± 0.20	1.25 ± 0.10	0.50 ± 0.10	0.40 ± 0.20	0.40 ± 0.20
NRCE12	1206	3.10 ± 0.15	1.55 ± 0.15	0.55 ± 0.10	0.50 ± 0.25	0.50 ± 0.30

Note: For details on construction see the NRC Series data sheet



Marking

E-24 Series: Tolerances are ±20% (M), ±10% (K).

3 DIGIT SYSTEM - First 2 digits are significant and 3rd digit is multiplier.

Examples: 756 = 75Meg ohms, 827 = 820Meg ohms, 108 = 1Gig ohms

STANDARD E-24 VALUES

E-24
Value
100
110
120
130
150
160
180
200
220
240
270
300
330
360
390
430
470
510
560
620
680
750
820
910

See NRC Series for tape and reel specification