

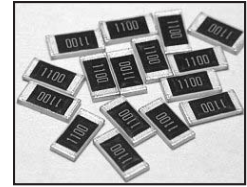
**RoHS
Compliant**

includes all homogeneous materials

FEATURES

- EXCELLENT ANTI-SURGE CHARACTERISTICS
- BOTH FLOW SOLDER AND REFLOW SOLDERING ARE APPLICABLE

*See Part Number System for Details



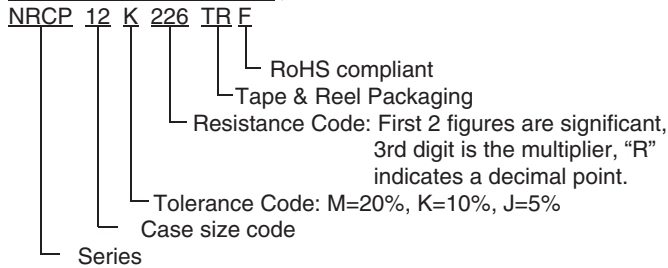
Type	EIA Size	Power Rating at 70°C	Max. *1 Working Voltage	Max. *2 Overload Voltage	Resistance Tolerance Code	Temperature Coefficient (ppm/°C)	Resistance Range (Ω)	Resistance Value	Operating Temperature Range
NRCP06	0603	1/10W	50	100	10% (K), 20% (M)	±200ppm	10 ~ 1Meg	E-24	-55°C ~ +155°C
NRCP10	0805	1/8W	150	300	5% (J), 10% (K), 20% (M)		10 ~ 1Meg		
NRCP12	1206	1/4W	200	400			10 ~ 1Meg		
NRCP25	1210	1/3W					1.1K ~ 1Meg		
		1/2W					10 ~ 1K		
NRCP35	1812	1/2W					10 ~ 1Meg		
NRCP50	2010	3/4W					10 ~ 1Meg		
NRCP100	2512	1W					10 ~ 1Meg		

Note *1 - Maximum allowable continuous Working Voltage for all resistors is the lower of the two values:
 "Maximum Working Voltage" as specified above
 (or)

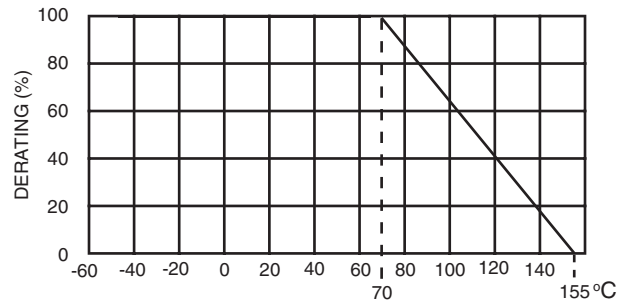
$$\sqrt{\text{Power rating (Watts)} \times \text{Resistance (Ohms)}}$$

Note *2 - Maximum allowable Overload Voltage is 2 times the Maximum Working Voltage (see Note *1 above) or Maximum Overload Voltage as specified in the table whichever is lower.

PART NUMBER SYSTEM

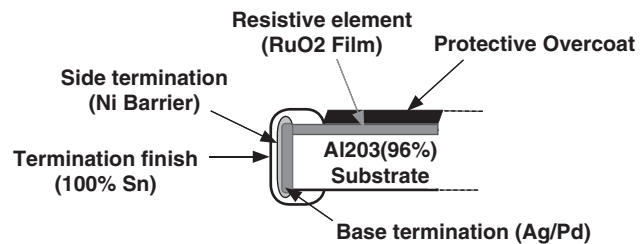
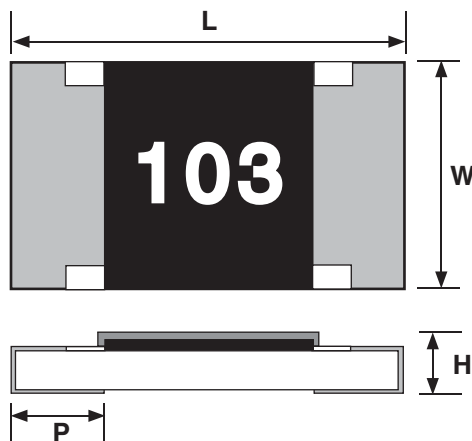


Power Derating Curve: For operation above 70°C, power rating must be derated according to the following chart:



COMPONENT AND LAND PATTERN DIMENSIONS (mm)

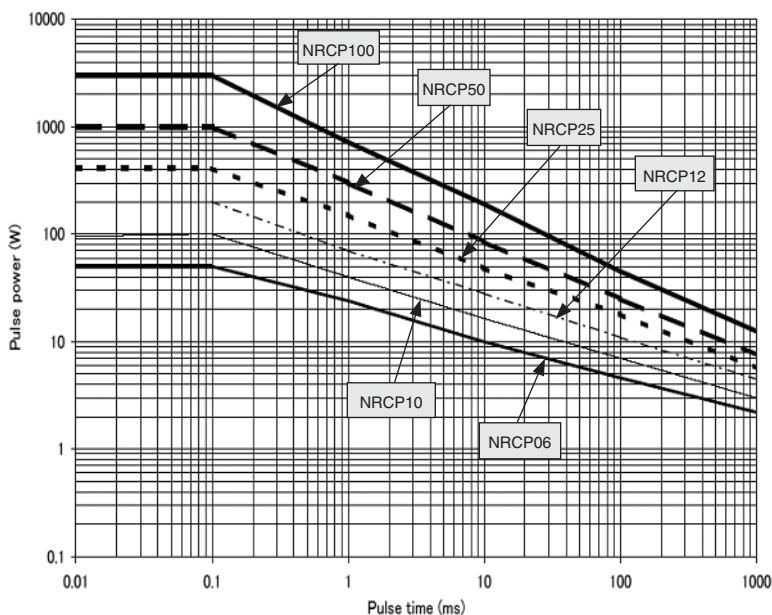
Type	EIA Size	L	W	H	P
NRCP06	0603	1.60 ± 0.15	0.80 ± 0.15	0.45 ± 0.10	0.30 ± 0.20
NRCP10	0805	2.00 ± 0.10	1.25 ± 0.10	0.50 ± 0.10	0.40 ± 0.20
NRCP12	1206	3.20 ± 0.15	1.60 ± 0.15	0.60 ± 0.10	0.50 ± 0.20
NRCP25	1210	3.20 ± 0.15	2.50 ± 0.15	0.60 ± 0.10	0.50 ± 0.20
NRCP35	1812	4.50 ± 0.20	3.20 ± 0.20	0.60 ± 0.10	0.50 ± 0.20
NRCP50	2010	5.00 ± 0.15	2.50 ± 0.15	0.60 ± 0.10	0.50 ± 0.30
NRCP100	2512	6.30 ± 0.15	3.20 ± 0.15	0.60 ± 0.10	0.70 ± 0.20



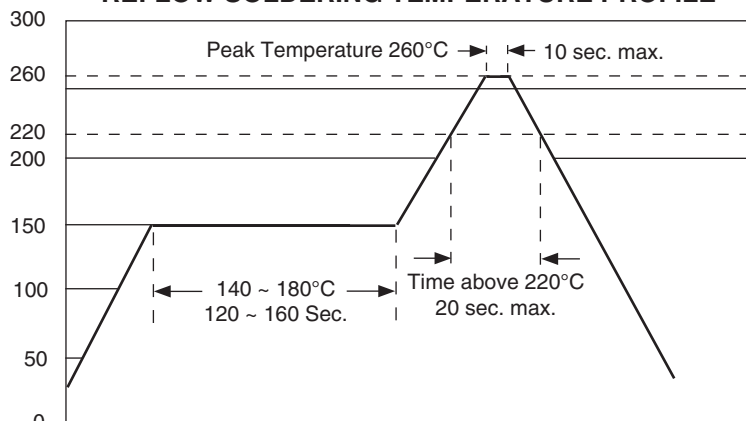
PERFORMANCE CHARACTERISTICS

Test Items	Requirement $\Delta R \pm$ ([] +0.1 Ω)	Test Methods (JISC5201-1)
Voltage proof	No breakdown or flashover	Maximum Overload Voltage, 60 seconds
Variation of resistance with temperature	See Specifications Table	+20°C/-55°C/+20°C/+125°C/+20°C or +20°C/-55°C/+20°C/+155°C/+20°C
Shorttime Overload	[2%]	Rated Voltage x 2.5 or Max. Overload Voltage x 2 Whichever is the greater, 2 seconds
Resistance to Soldering Heat	[1%]	Immersion into solder bath at 260°C for 5 seconds
Temperature Cycling	[1%]	100 times at -55°C 30 minutes/+125°C 30 minutes
Humidity Test (Steady State)	[1%]	+60°C, 90% ~ 95% RH, 1,000 hours
Load Life	[3%]	Rated Voltage, 1.5 hrs ON/0.5 hrs OFF Cycle, +70°C, 1,000 hrs
Humidity Load Life	[3%]	+60°C, 90% ~ 95% RH, 1,000 hours, Rated Voltage, 1.5 hrs On/0.5 hrs OFF cycle, 1,000 hrs

ONE-PULSE LIMITING POWER



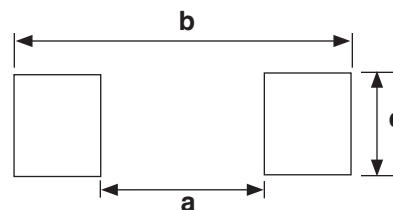
REFLOW SOLDERING TEMPERATURE PROFILE



Note: Maximum of 3 times

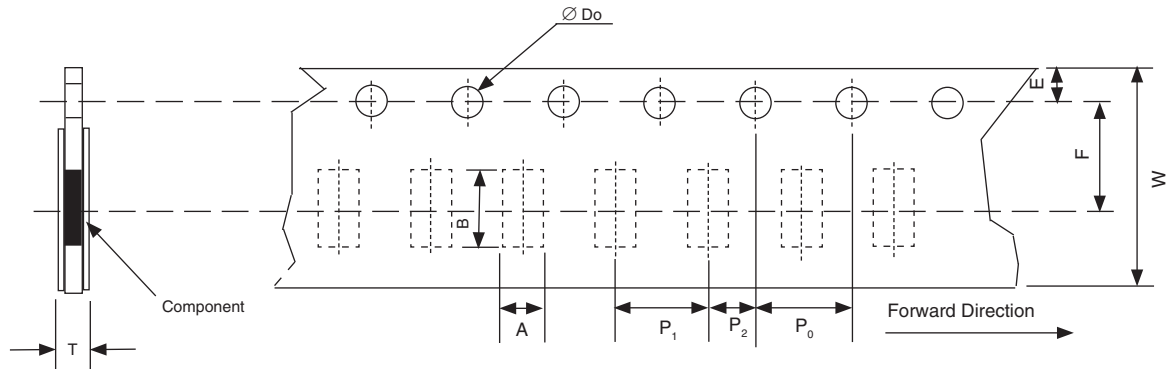
LAND PATTERN DIMENSIONS (mm)

a	b	c
0.9	2.6	0.78
1.35	3.45	1.1
2.2	4.7	1.4
2.2	5.2	2.15
3.5	6.1	2.75
3.7	6.2	2.15
4.7	7.6	2.75



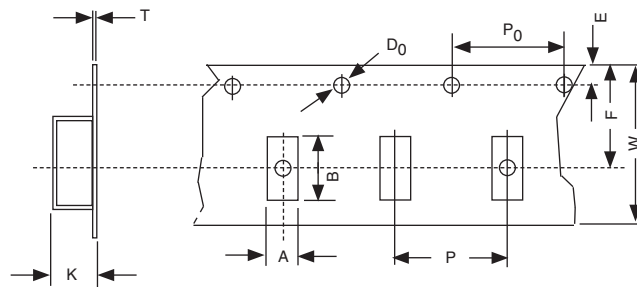
PAPER CARRIER TAPE DIMENSIONS (mm)

Type	A	B	W	F	E	P ₁	P ₂	P ₀	φD	T
NRCP06	1.10 ± 0.20	1.90 ± 0.20	8.00 ± 0.20	3.50 ± 0.05	1.75 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	4.00 ± 0.10	1.50 ± 0.10	1.40 max.
NRCP10	1.65 ± 0.20	2.40 ± 0.20								
NRCP12	2.00 ± 0.20	3.50 ± 0.20								
NRCP25	2.85 ± 0.10									



EMBOSED PLASTIC CARRIER DIMENSIONS (mm)

Type	A	B	W	F	E	P ₁	P ₂	P ₀	φD _o	T
NRCP35	3.50 ± 0.10	4.80 ± 0.10	12.00 ± 0.20	5.50 ± 0.05	1.75 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	4.00 ± 0.10	1.50 ± 0.10	1.10 max.
NRCP50	2.90 ± 0.10	5.40 ± 0.10								
NRCP100	3.40 ± 0.10	6.60 ± 0.10								



REEL DIMENSIONS (mm) AND QUANTITY

Type	A	B	C	W	Quantity
NRCP06	180 +0.0 -3.0	60 +1.0 -0.0	13 ±0.20	9.0 ±0.50	5,000
NRCP10					
NRCP12					
NRCP25					
NRCP35				3.2 ±1.50	4,000
NRCP50					
NRCP100					

