Radial Non-Polar 85°C and 105°C

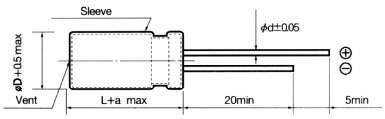
RDNP, UTWNP Series

- Used in reversing polarity circuits
- Small power crossover networks available
- The product is applied for 85°C (RDNP Series) or 105°C (UTWNP Series)

SPECIFICATION

ITEM	SPECIFICATION												
Capacitance Tolerance (120Hz 20°C)	±20% (M)												
Rated Working Voltage	6.3WV~250WV												
Operation Temperature Range	- 40 ~ + 85°C (RDNP Series)								-40 ~ +105°C (UTWNP Series)				
Surge Voltage(V) (20°C)	WV	6.3	10	16	25	35	50	63	80	100	160	200	250
	SV	8	13	20	32	44	63	79	100	125	200	250	300
Leakage Current (20°C)	I≤0.06CV +10												
	After rated voltage applied for 3 minutes Where I : Leakage Current (μA) C : Capacitance (μF) V : Rated Voltage (V)												
Dissipation Factor (tan δ) (120 Hz 20°C)	WV	6.3	10	16	25	35	50	63	80	100	160	200	250
	DF	0.24	0.20	0.17	0.15	0.15	0.15	0.10	0.10	0.10	0.20	0.20	0.20
	Add 0.02 per 1000 μF for more than 1000 μF												
Low Temperature Characteristics	Impedance ratio at 120Hz												
	Comparison Z⁄WV	6.3	10	16	25	35	50	63	80	100	160	200	250
	- 25°C / 20°C	4	3	2	2	2	2	2	2	2	6	6	6
	- 40°C / 20°C	8	6	4	4	3	3	3	3	3	12	12	12
Load Life	After 1000 hours application of W.V. at 85°C (RDNP Series) or 105°C (UTWNP Series) the capacitor shall meet the following limits												
	Capacitance Change	≤± 20 % of Initial Value											
	Dissipation Factor	≤200 % of Initial Specified Value											
	Leakage Current	≤Initial Specified Value											
Shelf Life	After 500 hours to place at 85°C (RDNP Series) or 105°C (UTWNP Series) without rated voltage applied, the capacitor shall meet the following limits as same as load life												
Others	Satisfied JIS C-5141												

DIMENSIONS (unit:mm)



øD	5	6.3	8	10	13	16	18
P	2.0	2.5	3.5	5.0	5.0	7.5	7.5
ød	0.5	0.5	0.6	0.6	0.6	0.8	0.8
a	1.0	1.0	1.0	1.0	2.0	2.0	2.0

RIPPLE CURRENT COEFFICIENTS

Frequency Multipliers

Freq. (Hz) / WV	50	120	1K	10K~
6.3~16	0.80	1.00	1.10	1.20
25~35	0.80	1.00	1.50	1.70
50~100	0.80	1.00	1.60	1.90
160~250	0.80	1.00	1.50	1.60

Temperature Multipliers

Temperature (°C)	~75	85	105
Coefficient	1.35	1.0	0.85

Radial Non-Polar 85°C and 105°C

CASE SIZE & MAX RIPPLE CURRENT — CASE SIZE ØDxL (mm) — MAX RIPPLE CURRENT (mA/125Hz),(85°C/RDNP Series, 105°C/UTWNP Series)

CAP Code	WV / µF	6.3		10		16		25		35		50		63		80		100		160		200		250	
		ØDxL	mA	ØDxL	mA	ØDxL	mA	ØDxL	mA	ØDxL	mA	ØDxL	mA	ØDxL	mA	ØDxL	mA	ØDxL	mA	ØDxL	mA	ØDxL	mA	ØDxL	mA
R47	0.47											5×11	10					5×11	11	6.3×11	8				
010	1.0											5×11	15	5×11	21			5×11	16	6.3×11	11	6.3×11	11	8×11	13
2R2	2.2											5×11	20	5×11	25	5×11	27	6.3×11	25	8×11	20	8×11	20	10×12.5	23
3R3	3.3											5×11	26	5×11	30	6.3×11	33	6.3×11	35	10×12.5	29	10×12.5	29	10×12.5	29
4R7	4.7									5×11	30	5×11	30	6.3×11	35	6.3×11	38	6.3×11	40	10×12.5	35	10×15	38	10×17	40
100	10					5×11	40	5×11	40	5×11	40	6.3×11	45	6.3×11	55	8×11	65	8×11	70	10×17	55	13×20	70	13×20	70
220	22			5×11	50	5×11	55	6.3×11	65	6.3×11	70	8×11	80	8×11	90	10×15	105	10×17	135	13×25	105	13×25	120	16×26	135
330	33	5×11	60	5×11	65	5×11	70	6.3×11	80	8×11	100	8×11	105	10×12.5	135	10×17	160	13×20	220	16×26	165	16×26	165	16×32	180
470	47	5×11	70	5×11	75	6.3×11	95	6.3×11	95	8×11	120	8×14	139	10×17	180	10×20	215	13×20	240	16×26	200	16×32	220	16×36	230
101	100	6.3×11	115	6.3×11	125	8×11	160	8×11	160	10×17	230	10×20	265	13×20	320	13×25	385	16×26	425	18×36	360				
221	220	8×11	205	8×11	215	10×12.5	275	10×17	305	13×20	410	13×25	480	16×26	575	16×32	690	18×36	720						
331	330	8×11	265	10×15	345	10×17	375	13×20	450	13×20	505	16×26	650	16×32	750	18×36	860								
471	470	10×12.5	370	10×17	410	10×20	485	13×20	540	13×25	655	16×32	835	18×36	965										
102	1000	10×20	650	13×20	720	13×25	855	16×26	950	16×32	1140														
222	2200	13×25	1160	16×26	1280	16×32	1510	18×36	1620																
332	3300	16×26	1570	16×32	1690	18×36	1980																		
472	4700	16×32	2020	18×36	2160																				
682	6800	18×36	2600																						