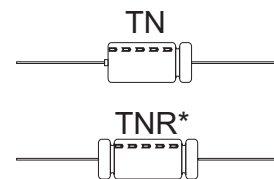


ALUMINUM ELECTROLYTIC CAPACITOR

TN Series: Axial Non-Polar

FEATURES

- 85°C, 1000 hours assured, standard non-polarized series.
- Suitable for use in circuits which have a reversed or unknown polarity.
- Bi-Polar types available (TB) (TBL).



* TNR available by special request only.

SPECIFICATIONS

Item	Performance										
Operating Temperature Range	-40°C ~ +85°C										
Capacitance Tolerance	± 20% (120Hz, 20°C)										
Leakage Current (at 20°C)	I = 0.03CV or 3 (A) whichever is greater (after 2 minutes) Where, C = rated capacitance in F, V=rated DC working voltage in V.										
Dissipation Factor Tan δ at 120 Hz, 20°C	Rated Voltage	6.3	10	16	25	35	50	63	100		
	Tan δ (max)	0.25	0.22	0.18	0.16	0.14	0.12	0.10	0.09		
When the capacitance exceed 1000 F, 0.02 shall be added every 1000 F increase.											
Low Temperature Characteristics (at 120Hz)	Impedance ratio shall not exceed the values given in the table below										
	Rated Voltage			6.3	10	16	25	35	50	63	100
	Impedance Ratio	Z(-25°C) /Z(+20°C)		4	3	3	2	2	2	2	2
		Z(-40°C) /Z(+20°C)		8	6	6	4	4	3	3	3
Load Life Test	Test Time		1000 Hrs								
	Capacitance Change		≤ ± 20%								
	Dissipation Factor		Less than 200% of specifec value								
	Leakage Current		Within specified values								
	The above specification shall be satisfied when the capacitors are restored to 20°C after rated voltage applied for 1000 hrs at 85°C										
Shelf Life Test	Test Time		1000 Hrs								
	Capacitance Change		≤ ± 20%								
	Dissipation Factor		Less than 200% of specifec value								
	Leakage Current		Within specified values								
	The above specification shall be satisfied when the capacitors are restored to 20°C after exposing them for 1000 hrs at 85°C without voltage applied.										
Standards	Satisfies Characteristic W of JIS C 5141										

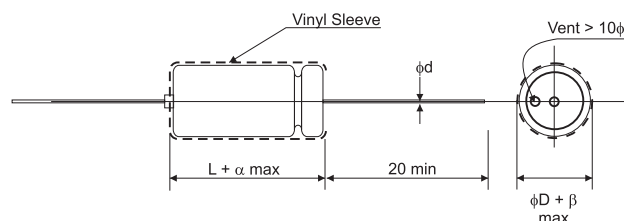
DIMENSIONS & PERMISSABLE RIPPLE CURRENT

Dimension: $\phi D \times L$ (mm); Ripple Current: mA/RMS at 120Hz 85°C

VDC		6.3V(0J)		10V(1A)		16V(1C)		25V(1E)		35V(1V)		50V(1H)		63V(1J)		100V(2A)	
μF	Code	$\phi D \times L$	mA	$\phi D \times L$	mA	$\phi D \times L$	mA	$\phi D \times L$	mA	$\phi D \times L$	mA	$\phi D \times L$	mA	$\phi D \times L$	mA	$\phi D \times L$	mA
0.1	0R1											6.3 x 13	5	6.3 x 13	5	6.3 x 13	5
0.22	R22											6.3 x 13	7	6.3 x 13	8	6.3 x 13	8
0.33	R33											6.3 x 13	9	6.3 x 13	10	6.3 x 13	10
0.47	R47											6.3 x 13	10	6.3 x 13	12	6.3 x 13	12
1	010											6.3 x 13	16	6.3 x 13	18	6.3 x 13	18
2.2	2R2											6.3 x 13	23	6.3 x 13	27	6.3 x 13	27
3.3	3R3											6.3 x 13	29	6.3 x 13	31	6.3 x 13	35
4.7	4R7											6.3 x 13	34	6.3 x 13	40	6.3 x 13	42
10	100									6.3 x 13	46	6.3 x 13	54	8 x 13	59	8 x 16	69
22	220					6.3 x 13	61	6.3 x 13	69	6.3 x 13	74	8 x 13	89	8 x 16	97	10 x 21	120
33	330			6.3 x 13	71	6.3 x 13	80	8 x 13	85	8 x 16	101	10 x 16	109	10 x 17	139	10 x 21	153
47	470			6.3 x 13	85	8 x 13	95	8 x 13	113	8 x 16	120	10 x 17	152	10 x 21	174	13 x 22	203
100	101	6.3 x 13	118	8 x 13	147	8 x 16	155	10 x 17	192	10 x 21	205	10 x 21	232	13 x 22	269	16 x 27	317
220	221	8 x 16	195	8 x 16	254	10 x 17	268	10 x 21	298	13 x 22	338	13 x 27	381	16 x 27	447	16 x 37	501
330	331	8 x 16	239	10 x 17	312	10 x 21	344	13 x 22	387	13 x 27	433	16 x 27	500	16 x 33	567		
470	471	10 x 17	333	10 x 21	389	13 x 22	436	13 x 27	483	16 x 27	552	16 x 33	618	18 x 42	792		
1000	102	13 x 21	508	13 x 22	603	13 x 27	664	16 x 27	781	16 x 37	857	18 x 42	1054				
2200	222	13 x 27	836	16 x 28	1000	16 x 37	1121	18 x 42	1355								

LEAD SPACING AND DIAMETER

ϕD	6.3	8	10	13	16	18
ϕd	0.6		0.8			
α	1.5		2.0			
β	0.5		1.0			



PART NUMBER EXAMPLE

TN 331 M 0J TR 080 160

TNR 331 M 1V TA 130 320