ALUMINUM ELECTROLYTIC CAPACITORS

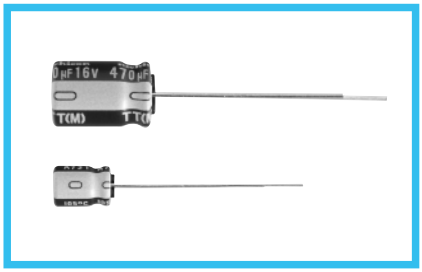
nichicon

TT Miniature Sized, Low Impedance, High Reliability For Switching Power Supplies series

Smaller | Low Impedance | Long Life | Anti-Solvent Feature

- Smaller case size and Long Life product.
- Compliant to the RoHS directive (2011/65/EU).

PW → Long Life → TT



■Specifications

Item	Performance Characteristics
Category Temperature Range	–40 to +105˚C
Rated Voltage Range	6.3 to 50V
Rated Capacitance Range	1 to 470µF
Capacitance Tolerance	±20% at 120Hz, 20˚C
Leakage Current	After 2 minutes' application of rated voltage, leakage current is less than 0.03CV or 3 (µA), whichever is greater.
Tangent of loss angle (tan δ)	Measurement frequency : 120Hz at 20°C

Rated voltage (V)	6.3	10	16	25	35	50
tan δ (MAX.)	0.30	0.28	0.24	0.18	0.16	0.14

Stability at Low Temperature — Measurement frequency : 120Hz

Rated voltage (V)		6.3	10	16	25	35	50
Impedance ratio ZT / Z20 (MAX.)	Z–25°C / Z+20°C	5	4	3	3	3	3
	Z–40°C / Z+20°C	10	10	8	6	4	4

Endurance

The specifications listed at right shall be met when the capacitors are restored to 20˚C after the rated voltage is applied for 5000 hours at 105˚C.

Capacitance change	Within ±30% of the initial capacitance value
tan δ	300% or less than the initial specified value
Leakage current	Less than or equal to the initial specified value

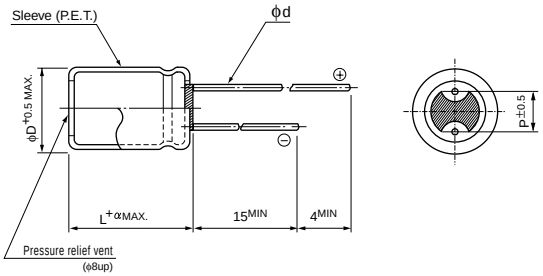
Shelf Life

After storing the capacitors under no load at 105˚C for 1000 hours and then performing voltage treatment based on JIS C 5101-4 clause 4.1 at 20°C, they shall meet the specified values for the endurance characteristics listed above.

Marking

Printed with white color letter on dark blown sleeve.

■Radial Lead Type



α	(L = 7) 1.0
	(L ≧ 9) 1.5

(mm)

φD	4	5	6.3	8
P	1.5	2.0	2.5	3.5
φd	0.45	0.45	0.5 (0.45)	0.6

( ) : Applied to 7mmL products

Type numbering system (Example : 25V 100µF)

1	2	3	4	5	6	7	8	9	10	11
U	T	T	1	E	1	0	1	M	P	D

- 11: Configuration ※
- 9: Capacitance tolerance (± 20%)
- 6–8: Rated capacitance (100µF)
- 4–5: Rated voltage (25V)
- 2–3: Series name
- 1: Type

※ Configuration

φ D	Pb-free leadwire Pb-free PET sleeve
4 to 6.3	DD
8	PD

• Please refer to page 20 about the end seal configuration.

Please refer to page 20, 21, 22 about the formed or taped product spec.
Please refer to page 4 for the minimum order quantity.

● Dimension table in next page.

TT series

■Standard Ratings

V (Code) / Item / Cap.(μF) / Code	6.3 (0J)			10 (1A)			16 (1C)		
	Case size φD × L (mm)	Impedance (Ω) MAX. 20˚C / 100kHz	Rated ripple (mArms) 105˚C / 100kHz	Case size φD × L (mm)	Impedance (Ω) MAX. 20˚C / 100kHz	Rated ripple (mArms) 105˚C / 100kHz	Case size φD × L (mm)	Impedance (Ω) MAX. 20˚C / 100kHz	Rated ripple (mArms) 105˚C / 100kHz
10 100							4 × 7	7.4	46
22 220	4 × 7	7.4	46				5 × 7	4.0	74
33 330				5 × 7	4.0	74			
47 470	5 × 7	4.0	74				6.3 × 7	2.1	120
100 101	6.3 × 7	2.1	120				6.3 × 9	1.1	163
150 151				6.3 × 9	1.1	163	8 × 9	0.68	230
220 221	6.3 × 9	1.1	163	8 × 9	0.68	230	8 × 9	0.68	230
330 331	8 × 9	0.68	230				8 × 9	0.68	230
470 471	8 × 9	0.68	230				8 × 11.5	0.40	298

V (Code) / Item / Cap.(μF) / Code	25 (1E)			35 (1V)			50 (1H)		
	Case size φD × L (mm)	Impedance (Ω) MAX. 20˚C / 100kHz	Rated ripple (mArms) 105˚C / 100kHz	Case size φD × L (mm)	Impedance (Ω) MAX. 20˚C / 100kHz	Rated ripple (mArms) 105˚C / 100kHz	Case size φD × L (mm)	Impedance (Ω) MAX. 20˚C / 100kHz	Rated ripple (mArms) 105˚C / 100kHz
1 010							4 × 7	30	23
2.2 2R2							4 × 7	23	26
3.3 3R3							4 × 7	20	29
4.7 4R7				4 × 7	7.4	37	5 × 7	14	37
10 100				5 × 7	4.0	74	6.3 × 7	4.4	84
22 220	5 × 7	4.0	74	6.3 × 7	2.1	120	6.3 × 9	2.4	112
33 330	6.3 × 7	2.1	120	6.3 × 9	1.1	163			
47 470	6.3 × 9	1.1	163	6.3 × 9	1.1	163	8 × 9	1.4	162
100 101	8 × 9	0.68	230						
150 151									
220 221	8 × 11.5	0.40	298						
330 331	8 × 11.5	0.40	298						

●Frequency coefficient of rated ripple current

Cap. (μF) / Frequency	50Hz	120Hz	300Hz	1kHz	10kHz	100kHz or more
1 to 4.7	0.25	0.30	0.50	0.70	0.90	1.00
10 to 47	0.30	0.40	0.60	0.75	0.90	1.00
100 to 470	0.60	0.60	0.70	0.80	0.90	1.00

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Nichicon:

UTT1C331MPD UTT1E470MDD UTT1H100MDD UTT1C221MPD UTT1V220MDD UTT0J221MDD UTT1H4R7MDD UTT1C470MDD UTT0J101MDD UTT1H3R3MDD UTT1H470MPD UTT1C220MDD UTT0J470MDD UTT1E220MDD UTT1V470MDD UTT1V330MDD UTT1H2R2MDD UTT1C471MPD UTT0J471MPD UTT0J331MPD UTT1H010MDD UTT1E330MDD UTT1V4R7MDD UTT1A151MDD UTT1A330MDD UTT1E221MPD UTT1H220MDD UTT0J220MDD UTT1E331MPD UTT1V100MDD UTT1A221MPD UTT1C100MDD UTT1C101MDD UTT1C151MPD UTT1E101MPD UTT1H220MDD1TD UTT1C151MPD1TD UTT1H2R2MDD1TP UTT1C470MDD1TP UTT0J331MPD1TD UTT1E220MDD1TP UTT0J221MDD1TD UTT1A151MDD1TD UTT0J471MPD1TD UTT1V330MDD1TD UTT1H470MPD1TD UTT1E330MDD1TP UTT1C100MDD1TP UTT1E221MPD1TD UTT1A330MDD1TP UTT1E101MPD1TD UTT1E331MPD1TD UTT1V4R7MDD1TP UTT1V470MDD1TD UTT1C471MPD1TD UTT1C101MDD1TD UTT0J101MDD1TP UTT1H3R3MDD1TP UTT1C331MPD1TD UTT1V220MDD1TP UTT1C221MPD1TD UTT1H100MDD1TP UTT1H010MDD1TP UTT0J220MDD1TP