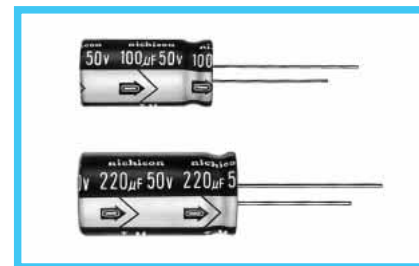


**TM** Timer Circuit Use  
series



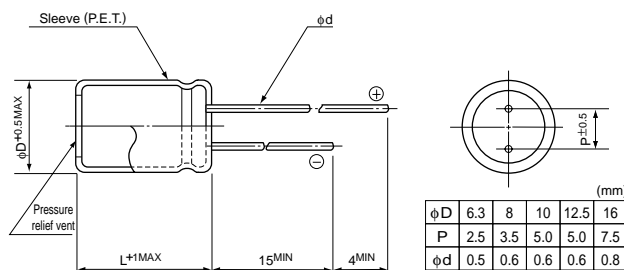
- Ideally suited for timer circuits.
- Excellent leakage current stability, even subjected to load or no load at high temperature for a long time.



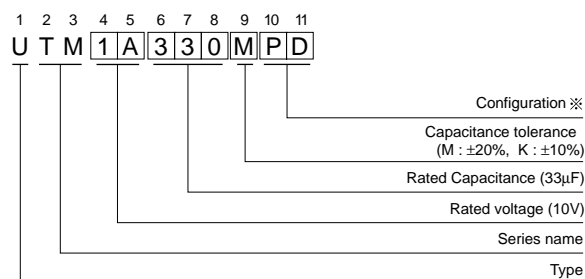
## Specifications

Item	Performance Characteristics														
Category Temperature Range	-40 ~ +85°C														
Rated Voltage Range	10 ~ 50V														
Rated Capacitance Range	1 ~ 470µF														
Capacitance Tolerance	±20% (M) (±10% (K) semi-standard) at 120Hz, 20°C														
Leakage Current	After 2 minutes' application of rated voltage, leakage current is 0.001CV+1 (µA) or less.														
tan δ	Measurement frequency : 120Hz, Temperature : 20°C														
	<table border="1"> <tr> <td>Rated voltage (V)</td> <td>10</td> <td>16</td> <td>25</td> <td>50</td> </tr> <tr> <td>tan δ (MAX.)</td> <td>0.17</td> <td>0.13</td> <td>0.10</td> <td>0.08</td> </tr> </table>	Rated voltage (V)	10	16	25	50	tan δ (MAX.)	0.17	0.13	0.10	0.08				
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tan δ (MAX.)	0.17	0.13	0.10	0.08											
Stability at Low Temperature	Measurement frequency : 120Hz														
	<table border="1"> <tr> <td>Rated voltage (V)</td> <td>10</td> <td>16</td> <td>25</td> <td>50</td> </tr> <tr> <td>Impedance ratio Z-25°C / Z+20°C</td> <td>2</td> <td>2</td> <td>1.5</td> <td>1.5</td> </tr> <tr> <td>ZT / Z20 (MAX.) Z-40°C / Z+20°C</td> <td>4</td> <td>3</td> <td>2</td> <td>2</td> </tr> </table>	Rated voltage (V)	10	16	25	50	Impedance ratio Z-25°C / Z+20°C	2	2	1.5	1.5	ZT / Z20 (MAX.) Z-40°C / Z+20°C	4	3	2
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ZT / Z20 (MAX.) Z-40°C / Z+20°C	4	3	2	2											
Endurance	<p>After 2000 hours' application of rated voltage at 85°C, capacitors meet the characteristics requirements listed at right.</p> <table border="1"> <tr> <td>Capacitance change</td> <td>Within ±10% of initial value</td> </tr> <tr> <td>tan δ</td> <td>150% or less of initial specified value</td> </tr> <tr> <td>Leakage current</td> <td>Initial specified value or less</td> </tr> </table>	Capacitance change	Within ±10% of initial value	tan δ	150% or less of initial specified value	Leakage current	Initial specified value or less								
Capacitance change	Within ±10% of initial value														
tan δ	150% or less of initial specified value														
Leakage current	Initial specified value or less														
Shelf Life	After leaving capacitors under no load at 85°C for 1000 hours, they meet the requirements for endurance characteristics listed above.														
Marking	Printed with white color letter on black sleeve.(PVC sleeve product : Printed with white color letter on dark blue sleeve)														

## Radial Lead Type



## Type numbering system (Example : 10V 33µF)



## Dimensions

Cap (µF)	V	φD × L (mm)			
		10	16	25	50
	Code	1A	1C	1E	1H
1	010				6.3 × 11
2.2	2R2				6.3 × 11
3.3	3R3			6.3 × 11	6.3 × 11
4.7	4R7			6.3 × 11	8 × 11.5
10	100		6.3 × 11	8 × 11.5	10 × 12.5
22	220	6.3 × 11	8 × 11.5	10 × 12.5	10 × 16
33	330	8 × 11.5	10 × 12.5	10 × 16	10 × 20
47	470	8 × 11.5	10 × 12.5	10 × 16	12.5 × 20
100	101	10 × 16	10 × 20	12.5 × 20	12.5 × 25
220	221	10 × 20	12.5 × 25	16 × 25	16 × 31.5
330	331	12.5 × 25	16 × 25	16 × 25	
470	471	12.5 × 25	16 × 25	16 × 31.5	

### ※ Configuration

φD	Pb-free leadwire Pb-free PET sleeve	Sn-Pb finished leadwire PVC sleeve (containing Pb)
6.3	ED	EA
8 · 10	PD	PA
12.5 · 16	HD	HA

※ Please contact to us if other configurations are required.