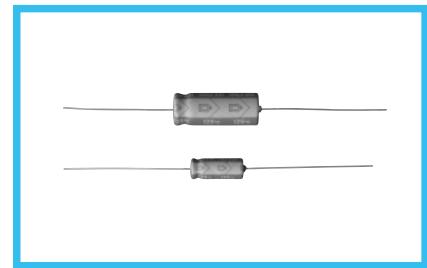


BE

High Temperature Range, For -40 to +125°C Use

(02type) series

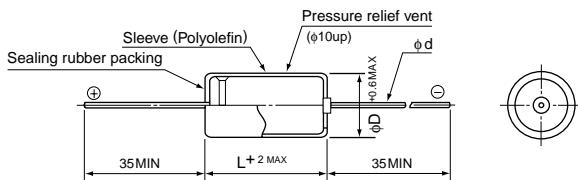
- Highly dependable reliability withstanding load life of 2000 hours at 125°C.
- Suited for automobile electronics, space equipment and communication appliances, where heavy duty services and indispensable.
- Compliant to the RoHS directive (2011/65/EU).



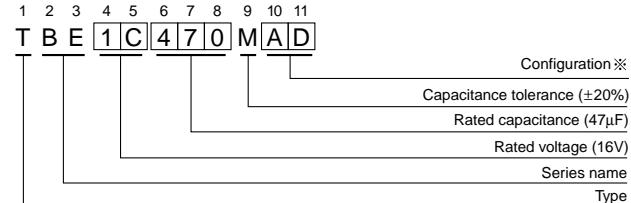
### ■ Specifications

Item	Performance Characteristics																							
Category Temperature Range	-40 to +125°C																							
Rated Voltage Range	10 to 50V																							
Rated Capacitance Range	0.47 to 470μF																							
Capacitance Tolerance	±20% at 120Hz, 20°C																							
Leakage Current	After 5 minute's application of rated voltage, leakage current is not more than 0.002CV or 2 (μA), whichever is greater.																							
Tangent of loss angle (tan δ)	Measurement frequency : 120Hz at 20°C <table border="1"> <tr> <th>Rated voltage (V)</th><th>10</th><th>16</th><th>25</th><th>35</th><th>50</th></tr> <tr> <th>tan δ (MAX.)</th><td>0.15</td><td>0.12</td><td>0.10</td><td>0.10</td><td>0.08</td></tr> </table>						Rated voltage (V)	10	16	25	35	50	tan δ (MAX.)	0.15	0.12	0.10	0.10	0.08						
Rated voltage (V)	10	16	25	35	50																			
tan δ (MAX.)	0.15	0.12	0.10	0.10	0.08																			
Stability at Low Temperature	Measurement frequency : 120Hz <table border="1"> <tr> <th>Rated voltage (V)</th><th>10</th><th>16</th><th>25</th><th>35</th><th>50</th></tr> <tr> <td>Impedance ratio Z-25°C / Z+20°C</td><td>3</td><td>2</td><td>2</td><td>2</td><td>2</td></tr> <tr> <td>ZT / Z20 (MAX.) Z-40°C / Z+20°C</td><td>6</td><td>4</td><td>4</td><td>4</td><td>4</td></tr> </table>						Rated voltage (V)	10	16	25	35	50	Impedance ratio Z-25°C / Z+20°C	3	2	2	2	2	ZT / Z20 (MAX.) Z-40°C / Z+20°C	6	4	4	4	4
Rated voltage (V)	10	16	25	35	50																			
Impedance ratio Z-25°C / Z+20°C	3	2	2	2	2																			
ZT / Z20 (MAX.) Z-40°C / Z+20°C	6	4	4	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 2000 hours at 125°C.			Capacitance change	Within ±20% of the initial capacitance value																			
				tan δ	200% 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 125°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 blue sleeve.																							

### ■ Axial Lead Type



### Type numbering system (Example : 16V 47μF)



#### ※ Configuration

ø D	Pb-free leadwire Pb-free Polyolefin sleeve
6.3 · 8	AD
10 to 16	CD

### ■ Dimensions

Cap.(μF) \ V	10	16	25	35	50
Code	1A	1C	1E	1V	1H
<b>0.47</b>	R47				6.3 × 16
<b>1</b>	010				6.3 × 16
<b>2.2</b>	2R2				6.3 × 16
<b>3.3</b>	3R3				6.3 × 16
<b>4.7</b>	4R7				6.3 × 16
<b>10</b>	100				6.3 × 16
<b>22</b>	220				8 × 16
<b>33</b>	330	6.3 × 16	8 × 16	8 × 20	8 × 20
<b>47</b>	470	6.3 × 16	8 × 16	8 × 20	10 × 21
<b>100</b>	101	8 × 20	10 × 21	10 × 21	10 × 26
<b>220</b>	221	10 × 21	10 × 26	13 × 26	13 × 26
<b>330</b>	331	13 × 26	13 × 26	13 × 31.5	13 × 31.5
<b>470</b>	471	13 × 31.5	13 × 31.5	16 × 31.5	16 × 31.5

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